WIREPATH
SURVEILLANCE

WPS-100-DVR-8CH

8 CHANNEL DVR

OWNERS MANUAL

Review manual thoroughly before installation. Retain for future reference.

CONTENTS

1. PRODUCT OVERVIEW....7

1.1 Introduction....7
1.2 Packing List....7
1.3 Features....7

2. PANELS AND REMOTE CONTROLLER....8

2.1 Rear Panel....8
2.2 Front Panel....10
2.3 Remote Controller....12

3. INSTALLATIONS....13

3.1 Basic Connections....13
3.2 Optional Connections....14

4. MAIN SCREEN AND BASIC OPERATIONS....15

4.1 Text Input....16
4.2 Login / Logout....17
4.3 Basic Operations using the Control Bar....17
4.4 Digital Zoom....19

5. MAIN MENU....20

5.1Status Display....20
5.2 Volume Control....21
5.3 Video Adjustment....22
5.4 Display....23
5.5 Backup Device....24
5.6 Software Upgrade....26
5.7 System Shutdown....27

6. SETUP MENU....28

6.1 Pre-Camera Setup....29
6.2 Camera Setup....30
6.2.1 Video Loss Setup....32
6.2.2 Motion Setup....34
6.2.2.1 Detection Settings....36
6.3 Alarm Setup....37
6.4 SEQ Display Setup....39
6.5 Scheduled Record Setup....41
6.5.1 Schedule Record Easy Setup....42
6.6 HDD Setup....43
6.6.1 HDD Format/Clear....45
6.6.2 Advanced HDD Setup....46
6.7 Password Setup....48
6.7.1 Advanced User Setup....50
6.8 System Setup....51
6.9 RS485 Setup....52
6.10 Network Setup....54
6.10.1 E-mail Setup....55
6.10.2 FTP Setup....57
6.10.3 Advanced Network Setup....58
6.11 Factory Default....59

7. PTZ CONTROL....60

7.1 OSD Control for Wirepath Surveillance Cameras....61

8. SEARCH/PLAYBACK/ARCHIVE....63

8.1 Search By Time....64

8.2 Search By Event / Log Display....65
8.3 Smart Search....66
8.4 Search Archived Files....69
8.5 Playback Search Results....70
8.6 Archive (Backup) Search Results....71

9. REMOTE ACCESS....73
9.1 PC Remote Access....73
9.2 PC Remote Display and Operations....73
9.2.1 Camera Window Option Menu....74
9.2.2 Control Panel....74
9.2.3 Split-Window Panel....75
9.2.4 Playback Panel....75
9.2.5 Status Panel....75
9.2.6 Search Panel and Copy Feature....76
9.2.6. 1 Search By Time....76
9.2.6.2 Search by Event....76
9.2.6.3 Search by PC Video....78
9.2.6. 4 Copy Function....78
9.2.7 PTZ Control Panel....79
9.2.8 Device Config....79
9.2.8.1 Modify....80
9.2.9 Software Upgrade....81
9.3 PC Configuration of Device Properties....81
9.3.1 System....82
9.3.2 Password....83
9.3.3 Network....86
9.3.4 Pre Camera....88
9.3.5 Camera....89
9.3.6 Motion....90
9.3.7 Video Loss....92
9.3.8 Alarm....93
9.3.9 SEQ Display....95
9.3.10 Schedule....96
9.3.11 Email....97
9.3.12 RS485....98
9.3.13 FTP....99
9.3.14 HDD....100
9.4 Dual Streaming....101
9.5 Motion Detection / Privacy Mask....103
9.5.1 Motion Detection....103
9.5.2 Privacy Mask....103
9.6 iPhone Remote Control....104
9.6.1 Remote Display and Operation....105
9.7 Smartphone Remote Control (other than iPhone) using WAP....107

10. WARRANTY....108

APPENDIX A – SPECIFICATIONS....109

APPENDIX B – MENU STRUCTURE....110

APPENDIX C – HARD DRIVE RECORDING TABLE....111

APPENDIX D – H.264 TO AVI CONVERSION....112

APPENDIX E – WIREPATHDNS SETUP....113

SAFETY INFORMATION

- Handle this device with care. Do not strike or shake this device as this may damage it.
- Do not expose this device to water or moisture. Moisture may damage the device and also cause electric shock. Do not operate it in wet areas. Take immediate action if the device becomes wet. Turn the power off and refer servicing to qualified service personnel.
- Do not use this device near any heat sources such as radiators, heat registers, stoves or other apparatus that produces heat.
- Protect the power cord from being stepped on or pinched particularly at the point where it connects to the device and at the receptacle.
- Do not operate this device beyond its specified temperature, humidity or power source ratings.
- Use this device in humidity below 85%.
- The performance and lifespan of the hard drive is affected when used in high temperatures. It is recommended to use this device within 68°F ~ 86°F.
- If mounting in a closed space, ventilation should be included. Do not block any ventilation openings.
- Handle the hard drive with care.
  - It is possible to damage the hard drive if it is moved while the motor is still spinning. Do not move this device after turning on the power. Follow the shutdown procedure (see Section 5.6) and wait at least 30 seconds before moving this device even if it is to simply reposition it on a shelf or in a rack.
  - If servicing or exchanging the hard drive, protect it from static electricity. Use a grounded static wrist guard and matt to properly ground yourself before servicing the hard drive.
  - Do not use an electric screw driver to remove or install a hard drive.
- Clean this device with a dry cloth. Do not use strong or abrasive detergents when cleaning the devise chassis. If dirt is hard to remove, use a mild detergent and wipe gently.
- Please make a note of the system settings and save them. This will help when required to change the system configuration, or when unexpected failure or trouble occurs.
- Do not drop metallic parts through the ventilation slots. This could permanently damage the device. If something falls inside the device, turn off the power immediately and contact qualified service personnel for service.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, or exporting the software provided with this product, is expressly prohibited and in violation of the law.

THIS PUBLICATION COULD INCLUDE TECHNICAL INACCUACIES OR TYPOGRAPHICAL ERRORS. AT ANY TIME CHANGES COULD BE MADE TO THE INFORMATION HEREIN FOR THE IMPROVEMENT OF THIS PUBLICATION AND/OR THE CORRESPONDING PRODUCT(S).

REGULATORY COMPLIANCE

This product complies with the relevant standards for CE, FCC, and RoHS approval. The Power Adaptor/Supply has been tested for compliance with UL, CSA, and CE standards.

CE FC RoHS Compliant

1. PRODUCT OVERVIEW

1.1 INTRODUCTION

The Wirepath™ WPS-100-DVR-8CH is a state-of-art Surveillance DVRs offering unsurpassed technology. Features such as Hexaplex operation with triple streaming via H.264 (low and high res), and MJPEG provides easy-to-use remote access via Automation Systems, PC, or Smartphone. With H.264 compression, D1 / Half D1 / CIF video resolution support and adjustable Frame Per Second record settings the installer can maximize the storage time of the built-in hard drive.

Wirepath™ DVR's professional grade features make them ideal for high-end residential and commercial monitoring applications.

1.2 PACKING LIST

(1) DVR
(1) 12V DC 3.0A Power Supply
(1) Remote Control
(2) AAA Batteries
(1) USB 1.1 Mouse
(1) Quick Installation Guide
(1) Disc with supporting documents

Connections

- Up to 8 cameras or composite video sources
- 2 Audio inputs, 2 Audio outputs
- 16 Alarm inputs, 2 Alarm outputs

Video / Audio

- Hexaplex operation - simultaneous record, live playback, backup, control, & simultaneous H.264 and MJPEG remote access
- Triple Stream H.264 and MJPEG
    - High Res H.264 for recording and streaming to IE Interface and Smartphones
    - Low Res H.264 for streaming for devices on bandwidth limited networks
    - MJPEG for streaming to Automation Systems
- Record capabilities
    - Full-D1: up to 120 FPS (frames per second)
    - Half-D1: up to 240 FPS
    - CIF: up to 270 FPS (9CH) and 480 FPS (16CH)
- Playback capabilities
    - Full-D1: up to 120 FPS (frames per second)
    - Half-D1: up to 240 FPS
    - CIF: up to 270 FPS (9CH) and 480 FPS (16CH)
- Real-time live display, 30 FPS, for each channel
- Versatile display formats: full-screen, 4,7, and 8 camera split windows
- ADPCM audio compression

Storage

- 500GB 3.5" SATA hard disk drive included
- Video/audio backup to USB2.0 storage devices, including thumb drives, DVD drives, etc.

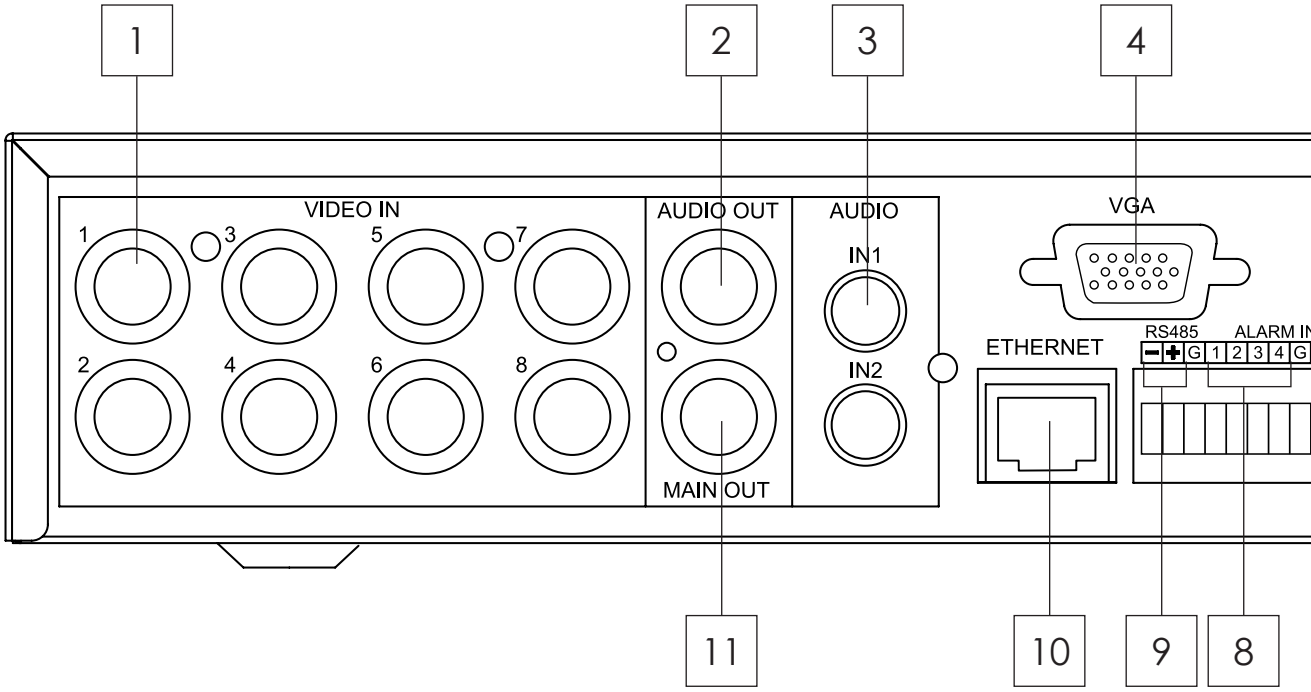
Control / Remote Access

- IR, and IP Controllable
- Ethernet interface
    - Stream video/audio to Automation Systems, IE interface, and Smartphones
    - Integrated control via Automation Systems such as Control4
    - Remote Setup
    - Remote software upgrade
    - Remote alarm notification via email
    - FTP video/audio storage
    - DDNS support
- RS-485 for PTZ Control

Advanced Operation

- Playback search by time or event (alarm, motion, & video loss)
- Smart search & playback
- Intelligent motion detection with programmable area and sensitivity
- Powerful alarm processor with configurable triggering conditions and reactions including email notification and FTP upload
- Multi-level password protection to ensure a high degree of security

© 2012 Wirepath Surveillance



2. FRONT AND REAR PANELS AND REMOTE CONTROL

2.1 REAR PANEL

1. Video Input Connectors (1-8)
Connect cameras to these BNC connectors. Internal 75Ω termination is always ON.

2. Audio Output Connector (AUDIO OUT)
This RCA connector supplies line level audio to an external device, such as an amplifier. Recorded audio will be output from the AUDIO OUT connector during playback, and live audio can be monitored during live viewing.

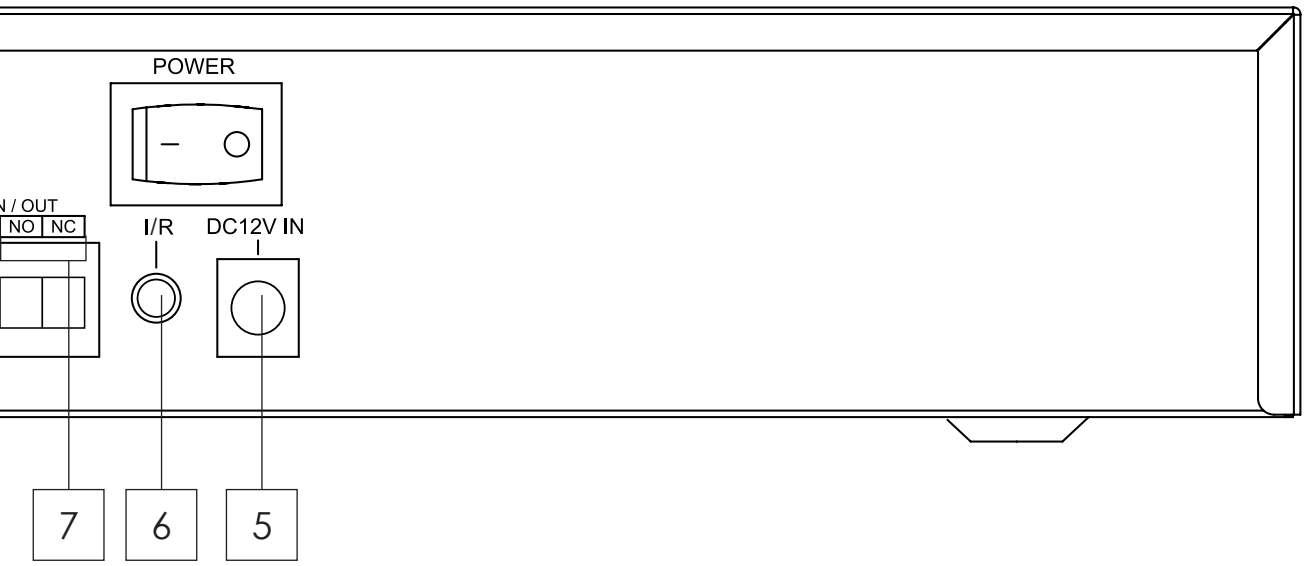
3. Audio Input Connectors (AUDIO IN)
These RCA connectors accept line level audio supplied from external devices, such as microphones.

4. Main Monitor Output VGA Connector (VGA)
Connect a VGA monitor to the D-SUB 15-pin female connector for main monitor display.

5. Power Connection (DC 12V IN)
Connect the supplied 12VDC 3A power supply.

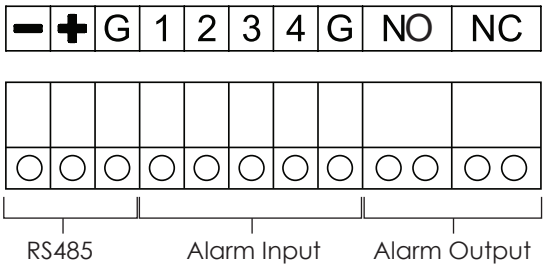
6. IR Extension Connector (I/R)
The IR connector is used to receive commands from an IR remote control system.

7. Alarm Output Connector (ALARM OUT NC / NO)
Use the internal relay to connect to a siren, strobe light, or sub system (such as an alarm system), using either the Normally Closed (NC) or Normally Open (NO) output. Only one of the two connections may be used.



8. Alarm Input Connectors (ALARM IN 1-4)
Connect to external devices such as motion sensors or door contacts to trigger events.

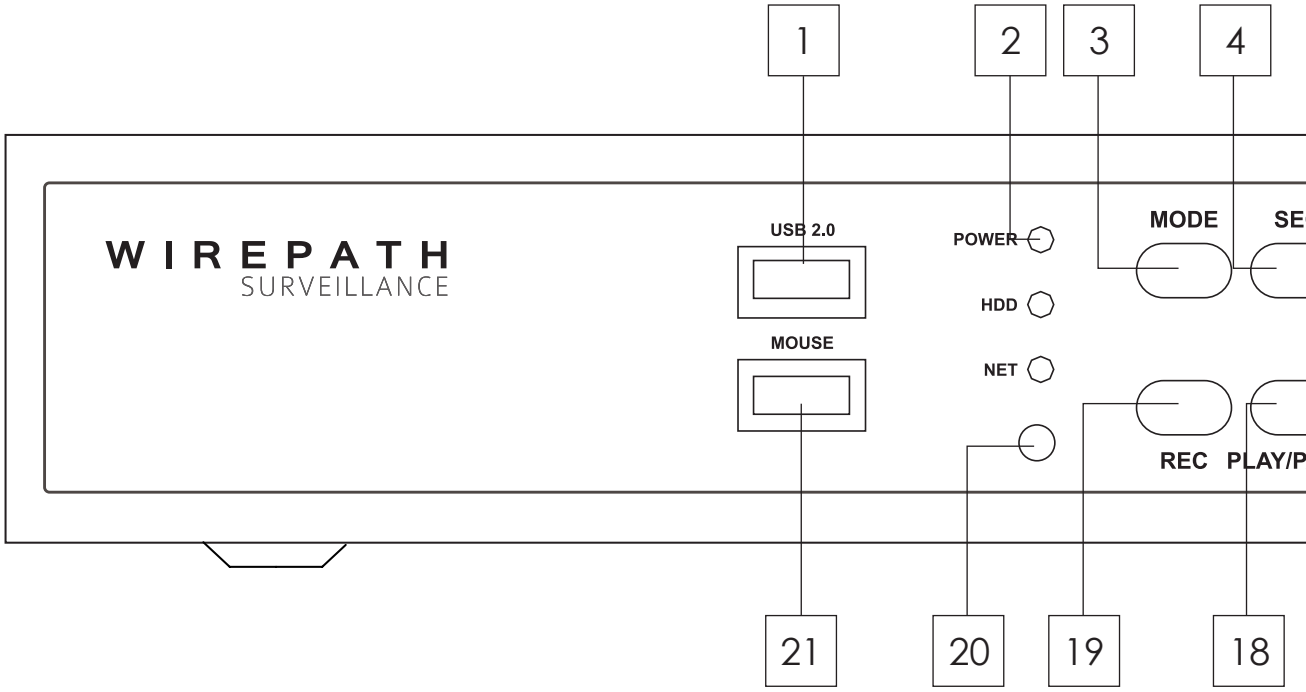
9. RS-485 Connector
Connect to RS-485 compatible PTZ camera(s) or keyboard. Please refer to the manuals supplied with the RS-485 compatible device for correct settings.



10. Ethernet Connector
Connect to a 10/100Base-TEthernet network for remote access and integrated control and video streaming to Automation Systems.

11. Main Monitor Output Connector (MAIN OUT)
Connect a display monitor to the BNC connector for main monitor display.

© 2012 Wirepath Surveillance



2.2 FRONT PANEL

1. USB2.0 Connector
Connect to USB 2.0 compatible storage devices such as a USB thumb drive, DVD+RW, etc.

2. LEDs
Indicators for POWER, HDD (Hard Disk Drive) and Network access.

3. MODE Button
Toggles the main display between LIVE and PLAYBACK mode. On the first press of this button, only the focus camera (indicated by the green box around the title of the camera) will go to PLAYBACK. A second press will switch all displayed cameras to PLAYBACK. A third press exits to LIVE video. In some menus, this button is used as a function key. When playing back recorded video, this button is used to "slow reverse" the video. Status is indicated in the status bar at the bottom of the main display.

4. SEQ Button
Enable or exit from the main display sequence mode. In some menus this button is used as a function key. When playing back recorded video, this button is used to "slow forward" the video. Status is indicated in the status bar at the bottom of the main display.

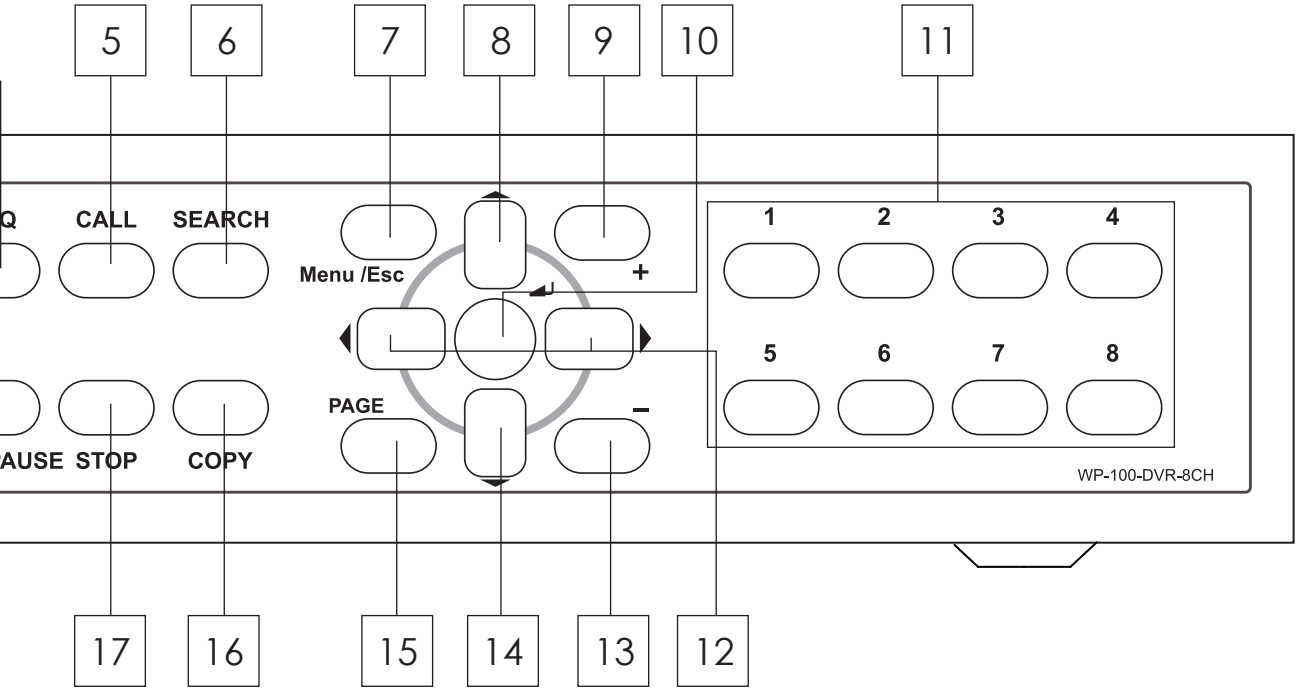
5. CALL Button
Switch to or return from full screen display of the focus camera. In some menus, this button is used as a function key.

6. SEARCH Button
Press to display the SEARCH menu. Once in playback, press this button to display a sliding scale of the playback window. In some menus, this button is used as a function key.

7. MENU / ESC Button
Press this button to display or exit from the main menu.

8. Up/Button (►/ BS on the remote control)
Press this button to move the focus window or cursor. When using PTZ control, press this button to tilt the camera up. In text editing mode, this button is used as the "backspace" key.

9&13.+/- Buttons (+/- buttons by the ⊞ symbol on the remote control)
These buttons are used to change the settings within the menu. In split-window display, press either of these buttons for next/previous split-window display.



10. ENTER Button (↵)
This button is used as an "enter" key in most circumstances. When using PTZ control, this button is used to start/stop the selected PTZ control mode.

11. Numeric Buttons (1-8 on the front panel and 1-9, 0, ∗, # on the remote control)
Used for camera selection in most cases, these buttons can also be used to enter text and numbers in a way similar to most mobile phones.

12. Left/Right Buttons (◄ ►)
Press either button to move the focus window or cursor. When using PTZ control, press either of these buttons to pan the camera. In playback mode, press either button for fast forward/reverse.

14. Down Button (▼/DEL on the remote control)
Press these buttons to move the focus window or cursor. When using PTZ control, press this button to tilt the camera down. In text editing mode, this button is used as "delete" key.

15. PAGE Button
When viewing the four camera split window, pressing this button toggles to the next split window display page

16. COPY Button (⎘ on the remote control)
Press this button during playback to display the SEARCH menu to copy recorded video to the storage device connected to the USB port.

17. STOP Button (■ on the remote control)
Press this button to STOP recorded video playback and return to LIVE view.

18. PLAY/PAUSE Button (►/II on the remote control)
Press this button to display the INSTANT PLAYBACK menu, and then PLAY or PAUSE recorded video.

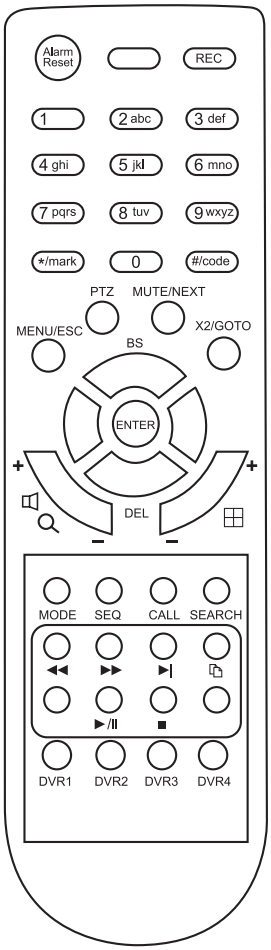
19. REC Button
Pressing this button begins manual recording. To stop manual recording, press this button again. Status is indicated in the status bar at the bottom of the main display.

20. Remote IR Sensor
Used to receive signal from IR remote controller.

21. USB Mouse Connector
Connect to the included USB1.1 mouse.

© 2012 Wirepath Surveillance

2.3 REMOTE CONTROL



The remote control has many of the same functions as the front panel buttons. See the corresponding numbers on page 8-9 for descriptions. The functions include:

3. MODE Button

4. SEQ Button

5. CALL Button

6. SEARCH Button

7. MENU / ESC Button

8. ▲/BS (Up/BS Button)

9,13. +/- Buttons by the ⊞ symbol (Split Window Control)

10. ENTER Button

11. 1-9, 0, ∗, # (Numeric Buttons)

12. ◄ ► (Left/Right Buttons)

14. ▼/DEL (Down/DEL Button)

16. (Copy Button)

17. ■ (Stop Button)

18. ►/II (Play/Pause Button)

19. REC Button

Additional buttons on the remote include:

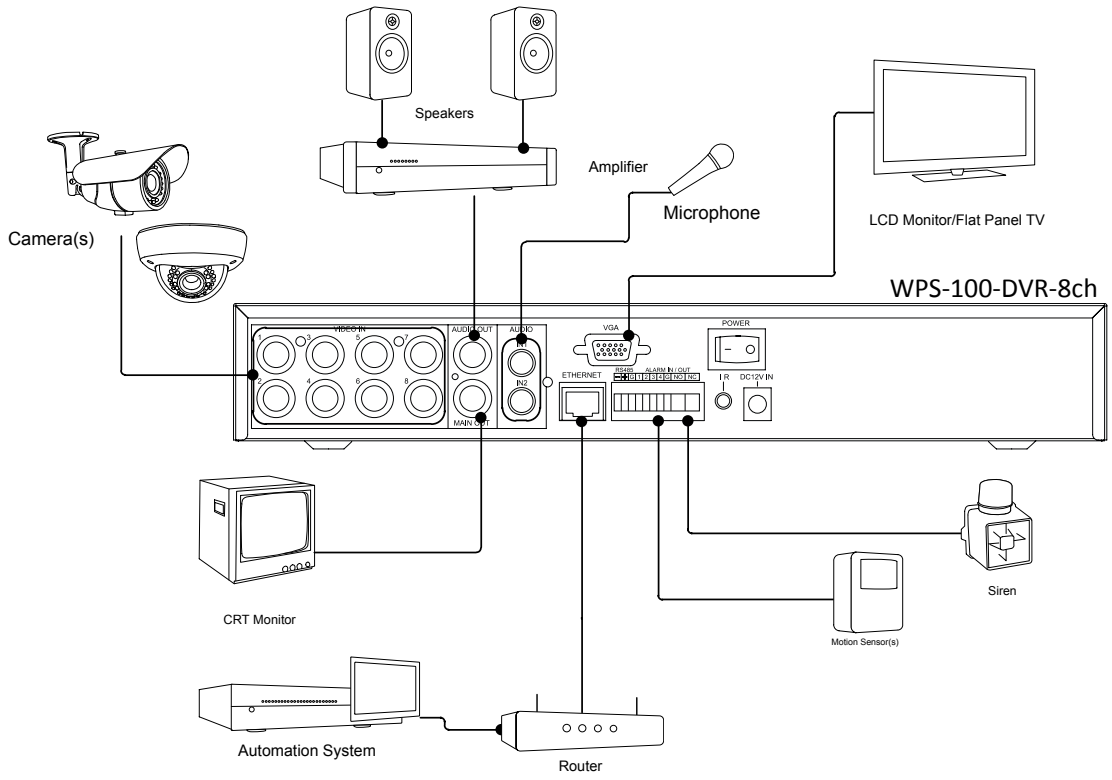
- **Alarm Reset**
  Press to cancel alarms and return the system to its normal conditions.
- **PTZ**
  Pan/Tilt/Zoom Control when in a full screen view of a camera that supports this feature.
- **MUTE/NEXT**
  Press to mute the audio or to scroll to the next control in the PTZ.
- **X2/GOTO**
  In full screen view, press this button for X2 and X4 digital zoom. In PTZ mode, press this button to move the camera to a preset position.
- **◄◄ / ►►**
  Fast foward and fast reverse playback video at 2X, 4X, 8X, 16X, 32X, and 6X speeds
- **►|**
  In playback, this button will freeze the video and step forward one frame at a time.
- **+/- Buttons (by the +/ symbols)**
  Increase or decrease the audio output level. In PTZ control, press these buttons to zoom the camera in or out.

3. INSTALLATION

The installation connections described below should be made by a qualified system installer.

3.1 BASIC CONNECTIONS

Please refer to the following diagram for the connections.



- **CAMERAS**
  Connect the video output from cameras or other composite video sources using coaxial cable to the Video In connectors. Internal 75Ω termination is always ON.

- **MAIN MONITOR/VGA OUTPUT**
  Connect the **Main Monitor** output (BNC) to a surveillance TV monitor, or connect the **VGA output** to a VGA monitor.

- **POWER**
  Connect the included 12V DC 3.0A power supply to **DC 12V**.

© 2012 Wirepath Surveillance

3.2 OPTIONAL CONNECTIONS

- **AUDIO INPUT**
  Connect the audio input connector to the audio line-out from line level microphones or other audio sources. Please make sure to associate the audio inputs with a camera in the **Camera Setup** as described in **Section 6.2** accordingly. An audio input can only be associated with one camera.

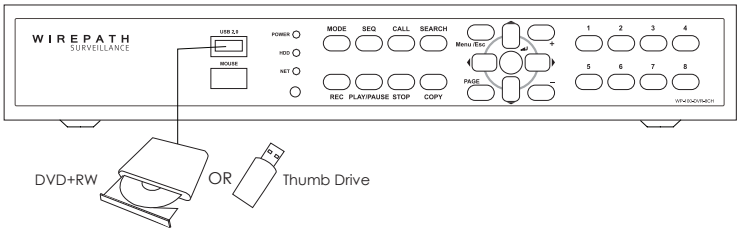
- **AUDIO OUTPUT**
  Connect the audio output connector to an amplifier and speakers.

- **ALARM INPUTS**
  Connect the alarm inputs to **NC** and/or **NO** sensors or security alarm panel relays. Please make sure to setup the alarm configurations as described in **Section 6.3** accordingly.

- **ALARM OUTPUT**
  Connect the alarm output to either a **NC** or **NO** type of device or system.

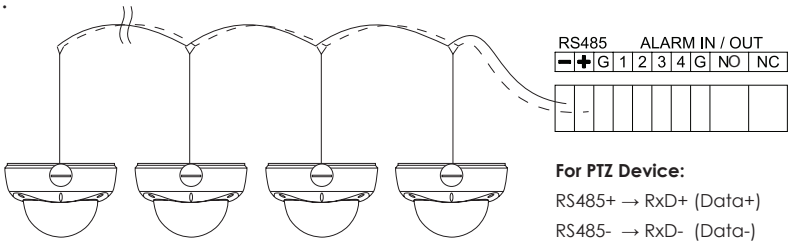
- **ETHERNET**
  Connect the Ethernet connector to router via a standard Ethernet cable for control and streaming to an Automation System, remote access via PC or Smartphone, or event email notifications.
  Please make sure to setup the related configurations as described in **Section 6.10** Network Setup.

- **USB 2.0 DISK DRIVES, DVD+RW, CARD READER, ETC.**
  Connect **USB 2.0** peripheral devices such as thumb drives or DVD+RW drives to store important recorded video and audio.



- **I/R REMOTE CONTROL**
  IR receive window to control the digital video recorder with the IR remote control

- **PTZ CAMERAS**
  Connect the RS-485 connector to PTZ camera(s) via an appropriate cable. The system supports a variety of PTZ cameras and the OSD menu of Wirepath™ Surveillance cameras. Different PTZ cameras can coexist in a system only if they support the same protocol and baud rate. Make sure to set unique PTZ IDs to the cameras, the DVR and any other PTZ device. Setup each camera **(Section 6.1)**, and RS485 **(Section 6.9)** accordingly.



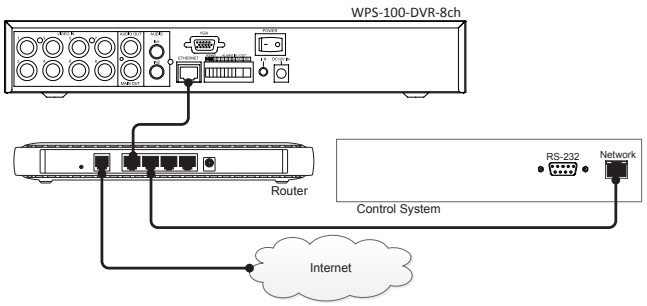
For PTZ Device:
RS485+ → RxD+ (Data+)
RS485- → RxD- (Data-)
GND → GND

For Wirepath Surveillance Cameras:
RS485+ → Positive
RS485- → Negative
GND → No Connection

IP Control Connections

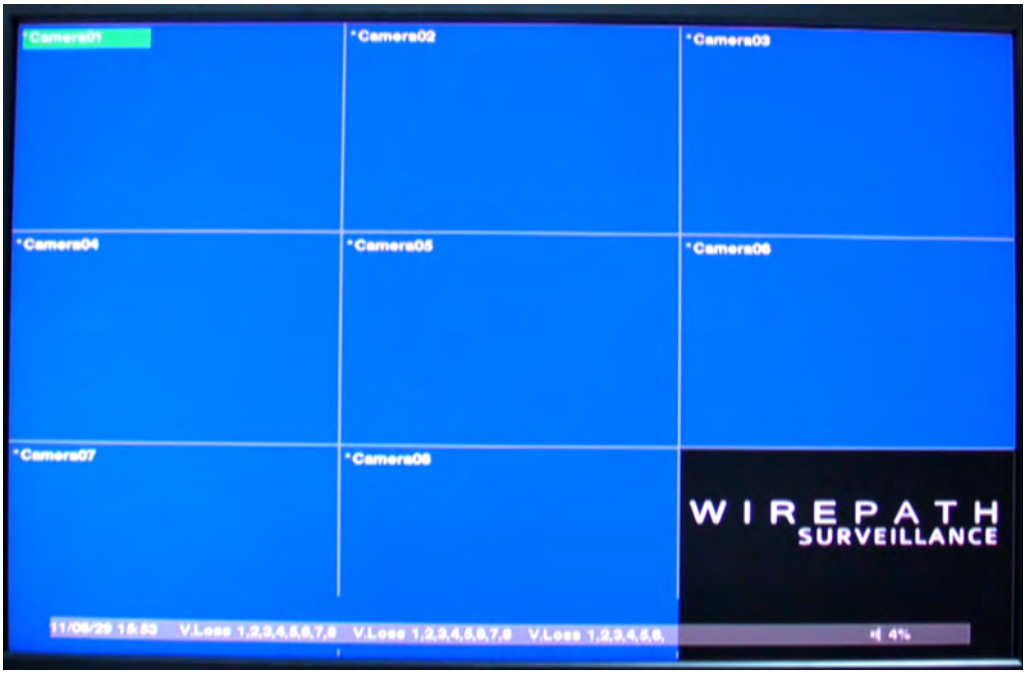
Wirepath™ DVRs provide integration with Automation Systems via Ethernet allowing for control and streaming of video. Connect the Ethernet port to a home automation network.

Note: *This feature is only available on DVRs with software versions 7.77.53 or higher and requires the home automation system manufacturer to provide the driver. Update the DVR to the latest version available on the SnapAV Website to use this feature.*



4. MAIN SCREEN AND BASIC OPERATIONS

The following sections (**Sections 4-6**) relate to the display output from the VGA or BNC connection. For operation using an Internet Explorer web browser see **Section 9**.



The split-window screen, as shown above, is the main screen displayed after system startup. There are several types of split-window screens including 1-Window, 4-Window, 7-Window, 9-Window, (as described in **Section 5.7**). In addition to the split windows, a **System Status Bar** is displayed at the bottom of the screen. Time is displayed in the lower-left corner while system status is displayed in the lower-right corner. Scrolling screen messages are displayed when certain events occur.

The System Status Bar offers the following information:

- SEQ display– SEQ icon shown for SEQ display ON
- Backup state – Backup icon shown for backup
- Manual record - REC icon shown for ON,
- Zoom states – X2, or X4,
- Mute state – speaker icon shown for not mute, not shown for mute,
- Hard Drive recording percentage,
- Video Loss - a message with the corresponding camera number scrolls from right to left
- Motion Detection- a message with the corresponding camera number scrolls from right to left
- Current date and time

In the top left of each camera the following information is displayed:

- Camera Title – name of the camera
- Recording icon – indicates video is being recorded
- Motion icon – indicates motion detected for this camera
- Alarm icon – indicates an alarm that has been associated with corresponding camera has been triggered

In split screen windows, the "focus" camera is indicated by a green or red box around the cameras title. **Green** indicates live video, and **red** indicates recorded video that is being played back.

© 2012 Wirepath Surveillance

4.1 TEXT INPUT

There are certain system settings that the system requires text to be entered, such as system login, camera title setup, etc. Follow the steps below using the **front panel or remote control** to enter text when prompted to do so by a text box:

1. Press **ENTER** to edit the highlighted option. The flashing cursor will be displayed to indicate the editing point.

2. Press ◄► to move the cursor to the left/right.

3. Press **#/code** (found on the remote control) in text editing mode to change text case. If the text entry accepts numbers only, pressing **code** will have no effect. Toggle through the options to select:
   - **123** = Number only
   - **abc** = All lower case letters
   - **ABC** = All capital letters
   - **CODE** = Used for languages that requires characters

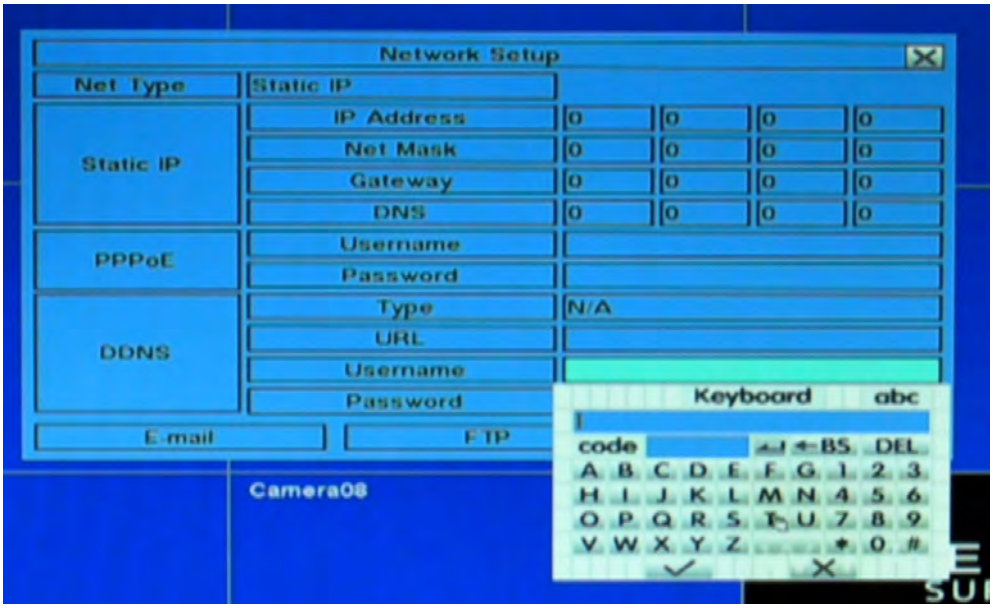
4. Use the front panel of the DVR or the remote control to press a number key **(1-9, 0)** repeatedly until the character you want appears (**1** for 1 or space, **2** for **2, a/A, b/B, or c/C**, etc.).

5. Press ***/mark** (found on the remote control) to display a list of punctuation marks and special characters. The highlighted character in the list indicates the selected character. Press ▲▼◄► to change the selection.

6. If you make a mistake, using the remote control press **BS** to remove the character to the left of the cursor, or press **DEL** to delete the character at the current cursor position.

7. Press **ENTER** to exit the highlighted option and save changes, press **ESC** to exit without making changes.

Alternatively the supplied mouse can be used to enter text. When using the mouse to enter text, click on a highlighted option window with the left mouse button. A **Keyboard Simulator** will be shown.



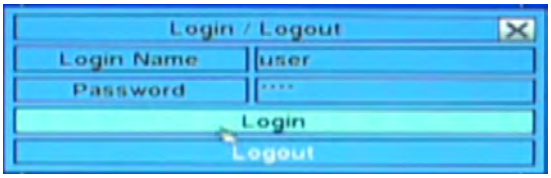
Click on "**#**" (or "**abc**", ..) to change text case. Click on the alpha-numeric characters to enter letters and umbers. Click on "*" for special characters. Click on the check mark to accept the changes or click on the **X** to exit without changes.

4.2 LOGIN / LOGOUT

There are three password levels in the system; **Administrator** (highest), **Supervisor**, and **Operator** (lowest). If the user does not login to the system, the user will be treated as a **Guest** and can only view live video display.

The system allows up to 18 user accounts. The Administrator can set up the login name and password for each user (please refer to **Section 6.7** for Password Setup) and has access to all features. The Supervisor can operate the live video display, video playback and archive. The Operator can only operate the live video display.

To login or logout of the system, press the **MENU** button on the front panel of the DVR or the remote control and then use the arrow buttons to select the desired option. Once the option is highlighted, press the **ENTER** button. Alternatively use the mouse by first right-clicking the mouse to display the main **MENU** and then select the **LOGIN** icon.



In **Login/Logout** menu, follow the text input method described in **Section 4.1** to enter the **Login name** and **Password.** Once the name and password are entered, press ▲▼ to highlight and select the **Login** option. Press **ENTER** to login the system. To logout of the system first display the **Login/Logout** menu and the press ▲▼ to highlight and select **Logout** option, and then press **ENTER**. Use the **ESC** button on the front of the DVR or the remote control to exit without making changes. Alternatively use the mouse to select the exit button or simply "right-click."

THE FACTORY PRESET ADMINISTRATOR LEVEL LOGIN NAME IS user, THE PASSWORD IS 1234

4.3 BASIC OPERATIONS USING THE CONTROL BAR

After logging into the system, use the supplied mouse to operate the DVR. A **Control Bar** will be displayed at the bottom of the display by "dragging" the mouse to the bottom screen. It is recommended to operate the **Control Bar** using the included mouse. Where applicable, buttons on the front panel of the DVR or remote control are indicated in the descriptions below.

The following is a brief description for each item in the menu and its specific operations:

- **NUMERIC**

  Select any camera from the front panel of the DVR or remote control by using the numeric buttons. Only buttons 1-8 are available in this 8 channel DVR. Alternatively use the mouse to select any of these icons to switch to the full-window display of a particular camera.

© 2012 Wirepath Surveillance

- **MODE**

  Use the button on the front of the DVR or the remote control to toggle live and playback mode. Playback mode is indicated by a **red** box around the camera title of the focus camera (the camera being controlled). If in a split window display, the focus window will first switch to playback mode. A second press of the button will toggle additional windows to playback mode. Continue to press the **MODE** button to return to live mode (indicated by a **green** box around the camera title of the focus camera). Alternatively, use the mouse to select this icon.

  MODE is only available to an Administrator or Supervisor.

- **SEQ**

  Press this button on the front of the DVR or the remote control to switch to or exit from the sequence display mode. Alternatively use the mouse to select this icon. In sequence mode, each page in the sequence will be shown sequentially for the preset time, and the **SEQ** icon will be shown in the **System Status Bar** in the lower-right corner of the screen.

- **CALL**

  Press this button on the front of the DVR or the remote control to switch to or return from full screen display of the focus camera. Clicking the mouse in the focus camera window will achieve the same result.

- **SEARCH**

  Press this button on the front of the DVR or the remote control to display the search menu. Alternatively use the mouse to select this icon.

  SEARCH is only available to an Administrator or Supervisor.

- **REC**

  Press this button on the front of the DVR or the remote control to force manual recording. To stop manual recording, press it again. Alternatively use the mouse to select this icon. All cameras will be recorded and a red REC icon will be shown on the lower-right corner of the screen when manual recording is active.

- **MENU**

  Press this button on the front of the DVR or the remote control (both labeled **MENU/ESC**) to display the main **Menu**. Alternatively use the mouse to select this icon, or, "right-click" the mouse to display the Menu.

- **PTZ**

  Press this button on the front of the DVR or the remote control to enter PTZ control mode if the focus camera is a PTZ camera and this feature is enabled in setup. Alternatively use the mouse to select this icon.

- **X2**

  Press this button on the remote control to enter the Digital Zoom mode when in full screen display. Alternatively use the mouse to select this icon.

- **VOLUME**

  Press these buttons on the remote control to control the gain (volume) of the **AUDIO OUT** jack. Alternatively use the mouse to select this icon.

- **GRID**

  Press the **Grid** buttons (next to the grid symbol) on the remote control to toggle through the available split-window displays. Only split-windows 1, 4, 7, and 9 are available in this DVR. Alternatively use the mouse to select the split window grid options.

- **PAGE**

  When in split window view, press the **Page** button on the front of the DVR to toggle through multi-split-window displays. Alternatively use the mouse to consecutively click on this icon.

- **OSD**
  Use the mouse to select the **OSD Display** icon to enable or disable the following information from appearing in the **System Status Bar** on the main display; **Title, Time, Messages, Status and Rec%**.

- **COPY**
  Press this button on the front panel of the DVR or the remote control to display the **Search** menu and then copy recorded video to the storage device connected to the USB port.

- **TRANSPORT CONTROLS**
  Use the **Transport** buttons on the front panel of the DVR or the remote control during playback to control the video. Alternatively use the mouse to click on these icons.

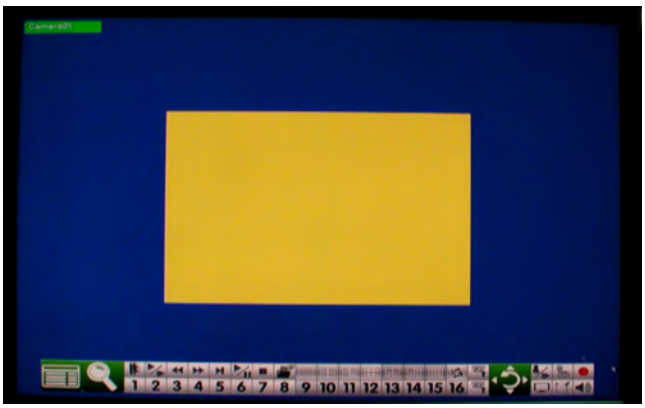
- **FAST/SLOW**
  Use the mouse to select this icon to toggle the speed of the forward and backward transport buttons.

- **PLAY/PAUSE**
  Press this button on the front panel of the DVR or remote control to launch the **Instant Playback** menu to playback the last 30 seconds or 1, 2, 3 or 5 minutes of video. Alternatively use the mouse to click on this icon.

- **ALARM RESET**
  Use the button on the remote control to cancel an alarm. Alternatively use the mouse to select this icon. This will reset the alarm outputs and silence the buzzer.

4.4 DIGITAL ZOOM

The DVR supports X2 and X4 Digital Zoom. Use this function in full window display mode. Press the **X2** button on the remote control to enter Digital Zoom. Alternatively use the mouse to select the icon ( )found in the **Control Bar**. A yellow zoom window will be displayed in the video window as shown.



- **X2 AND ENTER**
  Use the buttons on the front of the DVR or the remote control to zoom from X1 to X2. Pressing the **X2** button again followed by **ENTER** button will zoom to X4. Pressing the **X2** button followed by **ENTER** a third time will return the zoom to normal X1 view.

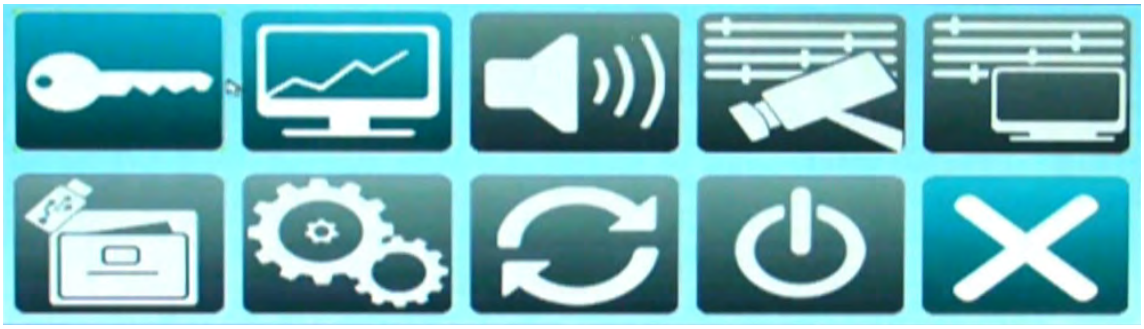
- **▲▼◄►**
  Use these buttons on the front of the DVR or the remote control to move the zoom window.

- **ESC**
  Use the **ESC** button on the front of the DVR or the remote control to escape from **Digital Zoom** mode and return to the normal full screen display. Alternatively use the mouse to select the **exit** button or simply "right-click."

© 2012 Wirepath Surveillance

5. MAIN MENU

Select the **MENU** icon from the **Control Bar** or right click the mouse in the display window to activate the main Menu display as shown.



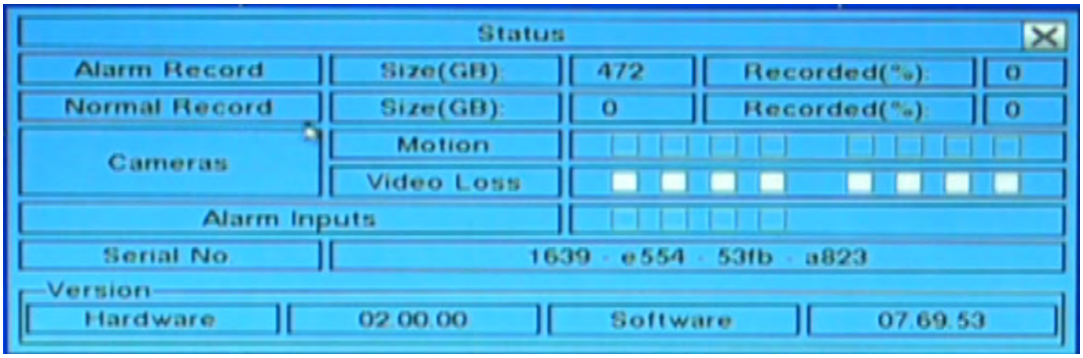
In the main Menu display and all subsequent displays, the items enabled are highlighted in Blue, and those disabled in Gray. Refer to **Appendix B** for an outline of the structure of Menu Displays, and to **Section 4.2** for **Login/Logout** display. The names of the icons are displayed when the mouse "hovers" over the icon.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front of the DVR or remote control to change the highlighted item. Alternatively use the mouse to navigate.
- **ENTER**
  Press this button on the front of the DVR or remote control to enter the detailed display of the highlighted option. Alternatively use the left mouse button to select an option.
- **ESC**
  Press this button on the front of the DVR or remote control to escape from Menu display, and return to the main video display. Alternatively use the mouse to select the EXIT icon or simply "right-click" the mouse.

5.1 STATUS DISPLAY

Once in the main Menu display, press ▲▼◄► on the front panel of the DVR or remote control to select **Status,** and then press **ENTER** to display the menu below. Alternatively use the mouse to click on the **Status** icon.



The **Status** display includes:

- **ALARM RECORDING STATUS**
  Displayed is the portion of the hard drive allocated to recording alarm events and the percentage of that space that is currently full.

- **NORMAL RECORDING STATUS**
  Displayed is the portion of the hard drive allocated to regular (normal, non-event) recording and the percentage of that space that is currently full.

- **CAMERA STATUS**
  Motion and Video Loss is indicated by a white box for cameras 1-8.

- **ALARM INPUT STATUS**
  Alarm input status is indicated by a white box for alarm inputs 1-4.

- **SERIAL NUMBER**
  DVR serial number

- **VERSION NUMBER**
  Hardware and Software version numbers

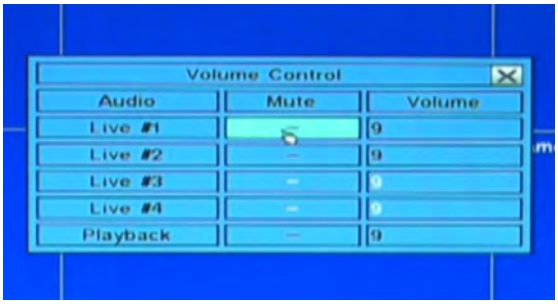
Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main Menu display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." Another method to escape is to use the mouse to "right-click," and exit the sub menu.

5.2 VOLUME CONTROL

The **Volume Control** menu allows for the adjustment of the gain (volume) for the **AUDIO IN** jacks. The master audio out volume can be controlled from the **CONTROL BAR**.

Once in the main **Menu** display, press ▲▼◄► on the front panel of the DVRor remote control to select Volume, and then press **ENTER** to display the menu as shown. Alternatively use the mouse to click on the **Volume** icon.

Note: This DVR supports two audio input channels. Therefore options for Audio 3 and 4 will be displayed in white text and cannot be changed.



The following is a brief description for each item in the sub menu and its specific operations:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an option. Alternatively use the mouse to select an option.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main Menu display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

© 2012 Wirepath Surveillance

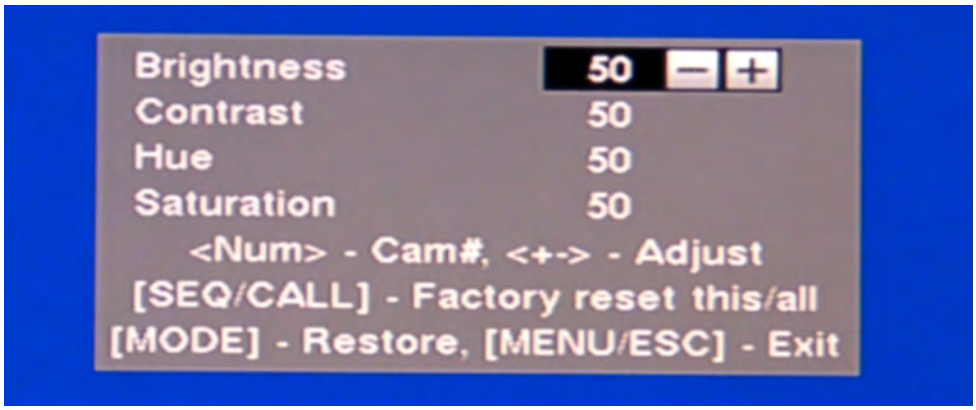
- **MUTE**
  Mutes the selected audio input channel. Using the front panel of the DVR or the remote control, press **ENTER** (or **+/-**) to check/uncheck this item. The default setting is "-" noting that the channel is not muted. Alternatively use the mouse to enable or disable the mute feature.

- **VOLUME**
  Adjusts the gain (volume) of the selected audio input channel. Press **+/-** buttons on the front panel of the DVR or the remote control to change the value (1-10). Alternatively use the mouse to select the desired volume level.

5.3 VIDEO ADJUSTMENT

The **Video Adjustment** menu allows for the adjustment of **Brightness, Contrast, Hue, and Saturation** for each video input.

Once in the main Menu display, press ▲▼◄► on the front panel of the DVR or remote control to select **Video Adjustment** and then press **ENTER** to display the menu as shown. Alternatively use the mouse to click on the **Video Adjustment** icon.



The following is a brief description for each item in the sub menu and its specific operations:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item.
  Alternatively use the mouse to select an item.

- **NUMERIC**
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.

- **+/-**
  Press these buttons on the front panel of the DVR or remote control to change the settings. Alternatively use the mouse to make these changes.

- **SEQ**
  Press this button on the front panel of the DVR or remote control to reset the video settings for the camera being viewed to factory default values.

- **CALL**
  Press this button on the front panel of the DVR or remote control to reset the video settings for all cameras to factory default values.

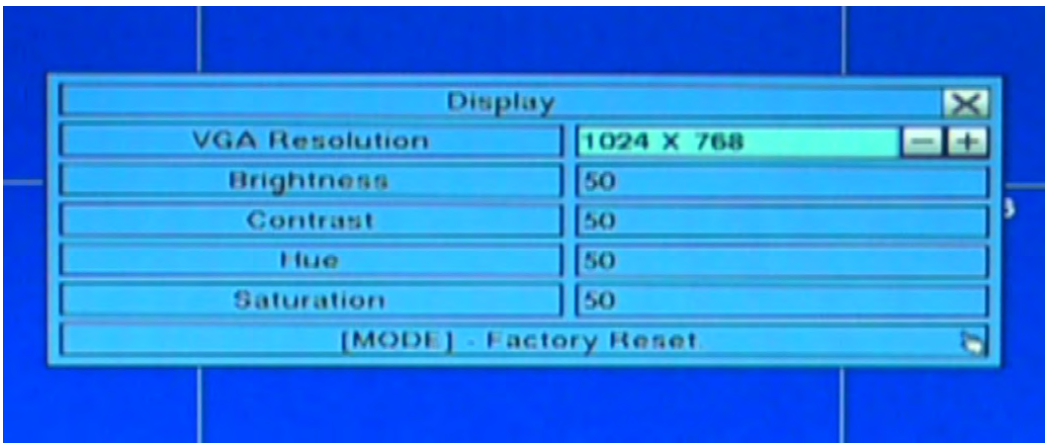
- **MODE**
  Press this button on the front panel of the DVR or remote control to restore the values.

- **ESC**
  Press the ESC button on the front panel of the DVR or remote control to escape from this menu and return to the main Menu display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

5.4 DISPLAY

The **VGA Display** menus allows for adjustment to the VGA output of the DVR.

Once in the **Main Menu** display, press ▲▼◄► on the front panel of the DVR or remote control to select **VGA Display** and then press **ENTER** to display the menu as shown. Alternatively use the mouse to click on the **VGA Display** icon.



Use the operations listed below to adjust **Resolution, Brightness, Contrast, Hue, and Saturation**.

Warning – Be sure the connected VGA monitor can accept the desired resolution before selecting it. If a resolution is selected that is not supported by the monitor and video is lost at the VGA monitor, continue to use the +/- buttons on the front panel of the DVR or the remote control to select a setting that is supported. Another option would be to temporarily connect a composite video monitor to the Video Out BNC to properly set the VGA resolution.

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **+/-**
  Press these buttons on the front panel of the DVR or remote control to change the settings. Alternatively use the mouse to make these changes.

© 2012 Wirepath Surveillance

- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.

- **MODE**
  Press this button on the front panel of the DVR or remote control to restore **Brightness, Contrast, Hue and Saturation** values. Alternatively use the mouse to click on the Factory Reset button.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main Menu display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

5.5 BACKUP DEVICE

The **Backup Device** menu allows for backup and restoral of the DVR's configuration to or from a USB device. This DVR supports a variety of USB 2.0 storage devices including thumb drives and DVD drives.

Once in the main Menu display, press ▲▼◄► on the front panel of the DVR or remote control to select **Backup Device**, and then press **ENTER** to display the menu as shown. Alternatively use the mouse to click on the **Backup Device** icon.

Note: It is highly recommended to make a backup of the configuration once complete. Keep a copy of this backup in a secure location for future use. When setting up multiple DVRs with similar configurations, this feature could also be used to create a "template" file to speed the setup process.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main Menu display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

- **CONNECT/DISCONNECT**
  If the backup device is disconnected (as shown in screen capture above), plug the USB device into the **USB 2.0** port and then press **ENTER** on the front panel of the DVR or on the remote control. Alternatively use the mouse to click on the **CONNECT** button. If the device is already plugged in, press **ENTER** on the front panel of the DVR or on the remote control to connect the device. Alternatively use the mouse to click on **CONNECT**. It is recommended to select the **DISCONNECT** option before unplugging the USB device.

  Note 1: Before using a USB drive, please format it to FAT32 file system using Windows.

  Note 2: The backup device must be connected by the system software before it can be used to read/write. If it fails to connect, unplug the device and then plug the device into the USB port again.

  Note 3: Some backup devices may have compatibility problems. See the list of tested devices below.

  TESTED USB 2.0 DEVICES

  - Macpower Alumni Prefect USB 2.0 - PF-U2MS
  - Transcend JetFlash 150/V60 Series, JetFlash V33 8GB
  - Apacer Handy Steno AH220
  - Pretec i-Disk Wave 512M-Black
  - Kingston DataTraveler USB Flash Driver(DTI/512FE)
  - Kingston DataTraveler DT100 8GB
  - SanDisk Cruzer micro USB Flash Driver
  - Sandisk Cruzer Titanium 4GB, Cruzer Contour 4GB
  - Sony MICRO VAULT Classic Series
  - OCZ ATV 4GB, Rally2 4GB

  TESTED DVD DRIVES

  - Asus DRW-1608P Series
  - Pioneer DVR-A11, DVR-X152 Series
  - BenQ EW200G Series
  - LITEON LightScribe DVD Writer SHM-165H6S, 20X DVD Writer DX-20A4P
  - Sony DVD/CD Rewritable Drive Model DRX-810UL Series
  - NEC DVD/CD Rewritable Drive Model ND-4550A Series
  - HP dvd9404e External 18X Super Multi DVD Writer Series

- **BACKUP**
  Once a device is connected, use the ▲▼◄► buttons on the front panel of the DVR or the remote control to select **BACKUP** for the corresponding USB device and press **ENTER**. Alternatively use the mouse to select this button. Enter the directory to backup the configurations to. This button will remain white in color and unavailable until a USB device is connected.

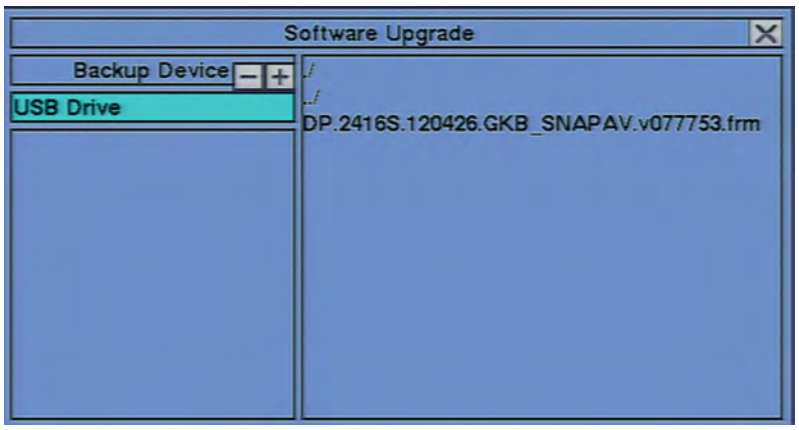
- **RESTORE**
  Once a device is connected, use the ▲▼◄► buttons on the front panel of the DVR or the remote control to select **RESTORE** for the corresponding USB device and press **ENTER**. Alternatively use the mouse to select this button. Enter the directory to restore the configurations from. This button will remain white in color and unavailable until a USB device is connected.

© 2012 Wirepath Surveillance

5.6 SOFTWARE UPGRADE

This menu is available to Administrators only.
On occasion it may be necessary to update the DVR's software to take advantage of new features. Using the commands below, follow the instructions provided with the upgrade file.

In the Menu display, use the buttons on the front panel of the DVR or remote control, and press ▲▼◄► to select the Software Upgrade icon. Alternatively use the mouse to select this icon from the main Menu.



5.6.1 Updating Software via DVR Local Display

1. Insert a USB Thumb Drive with the new software into the USB connector on the front of the DVR.
2. Bring up the menu by pressing MENU/ESC on the front panel or remote or by right clicking the mouse.
3. Select the **Software Update** Icon from the Menu using the mouse, the remote or the front panel (Menu/ESC + Up/Down/Left/Right buttons).
4. USB Thumb Drive contents will show in the right hand window.
5. Select the appropriate new software file mouse and click the mouse or use enter key on front panel or remote.
6. Use mouse to select the check mark or press enter on remote or front panel. Software upgrade is indicated on the bottom scroll line. During this process the DVR must remain powered ON or the DVR will become inoperable.

Note: *After the software is upgraded, the system will restart immediately. This process may take a few moments, after the DVR restarts login will be required.*

! Note: If updating from a software version below 7.75.53, the following steps must be performed before accessing the DVR from IE.

IE Plugin Interface Upgrade
The IE Plugin interface **MUST** be updated to ensure it can access the latest DVR software features.

1. Update the DVR software following the instructions listed above.
2. Download the **Remove_WPS_IE_Plugin** file from the SnapAV website. This file is also located in the software update zip file.
3. **Reboot** each computer that will be used to access or configure the updated DVR.
4. When the computer restarts, **Do Not Open IE**. Run the **Remove_WPS_IE_Plugin** file.
5. Open IE and access the updated Wirepath DVR. Perform Step 2, 3and 4 for all computers that will be used to access the DVR.
6. IE may initially block installation of the DVR Plugin. If so, review the prompt and allow the Plugin to be installed.
7. If prompted, allow installation of the C++ Distributable Package and IEPlugin.cab packages.
8. When Plugin installation is complete, log in to and configure the DVR as usual.

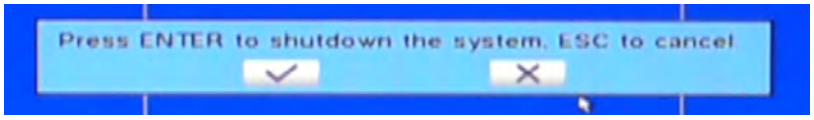
5.6 SYSTEM SHUTDOWN

This menu is available to Administrators only.

Always properly shutdown the DVR before moving it. The hard drive can be damaged if the DVR is moved before shutdown. Whatever state the DVR was in when it was properly shutdown, the DVR will reboot to this state (ex: split window display, etc).

WARNING – When powering off the DVR, use the following proper shutdown procedure to avoid damaging the unit: Select Shutdown from the Main Menu. The onscreen display will display a scrolling message in the Status Bar when it is safe to turn off the power switch on the rear of the DVR.

In the Menu display, use the buttons on the front panel of the DVR or remote control, and press ▲▼◄► to select **Shutdown**, and then press **ENTER**. Alternatively use the mouse to select this icon from the main Menu. A confirmation dialog box will appear on the screen. Press **ENTER** to confirm the shutdown. The system will save all the files and all the states, and then display a power-off message in the rolling screen message area. At this point, the user may safely power off the system with the power button found on the rear of the DVR.



© 2012 Wirepath Surveillance

6. SETUP MENU

This menu is available to Administrators only.

In the Menu display, use the buttons on the front panel of the DVR or remote control, and press ▲▼◄► to select **Setup**, and then press **ENTER**.

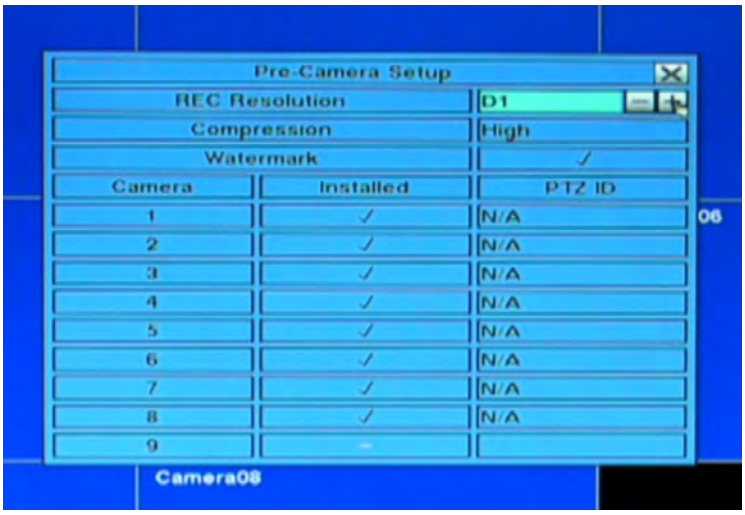
To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front of the DVR or remote control to change the highlighted item. Alternatively use the mouse to navigate.
- **ENTER**
  Press this button on the front of the DVR or remote control to enter the detailed display of the highlighted option. Alternatively use the left mouse button to select an option.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." Another method to escape is to use the mouse to "right-click," and exit the sub menu.

6.1 PRE-CAMERA SETUP

Pre-Camera Setup allows the administrator to define fundamental attributes for connected cameras.

In the **Setup** menu, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **Pre-Camera**, and then press **ENTER** to display **Pre-Camera** menu.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons▲▼◄► on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **REC RESOLUTION**
  Select the record resolution for all the cameras connected to the system. This is a global setting. Select **D1** for the highest resolution (720x480), **Half D1** for medium resolution (720x240), or **CIF** for lower resolution (360x240).
  Note: While higher resolution offers more detail, it does require more storage space and higher network bandwidth while streaming at Record quality.
- **COMPRESSIOIN**
  This DVR uses the latest compression format (.h264) for the most efficient use of storage space and streaming flexibility. The **Compression** setting allows the administrator to further compress streaming video to account for slow or bandwidth limited networks. Choose **Normal** for normal compression or select **High** to enable the remote stream of the Dual Streaming (See **Section 9.4**). The **High** setting will reduce the resolution of the second stream to one of the four QCIF levels as set in Video Stream setting in the Network setup (See **Section 6.10**).
- **WATERMARK**
  An invisible, digitally-embedded security feature to protect against tampering of recorded content can be added to the video file. If a downloaded **.h264** clip has been altered, the PC based playback software will alert the user with a message upon playback. The default setting is enabled.
- **INSTALLED**
  Enable or disable cameras from this menu. The default setting is enabled.
- **PTZ ID**
  PTZ ID is the Pan/Tilt/Zoom ID of the camera if it's a PTZ camera. The PTZ ID should be unique and must be consistent with the ID setting in the PTZ-capable camera. Please refer to the manual for the camera regarding PTZ ID setting. Press +/- buttons to change the value from **N/A** or **0-255**. The default setting is **N/A** (Not Available), which means that the camera is not a PTZ camera. See **Section 6.9** for more information on PTZ.

© 2012 Wirepath Surveillance

6.2 CAMERA SETUP

The **Camera Setup** menu allows the administrator to define additional attributes for each camera.

In the **Setup** menu, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **Camera Setup**, and then press **ENTER** to display the**Camera Setup** menu.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item. The display will scroll left/right if a camera is not shown on the screen.

- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.

- **COPY** (⎘)
  Press the **COPY** button on the front panel of the DVR or remote control to copy all the settings (excluding **Title, Video Loss, Motion Detection and Audio**) - of the focus camera to all of the cameras.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**."
  If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **TITLE**
  Name each camera with a unique identifying name up to eight characters maximum. Follow the Text Input method described in **Section 4.1** to modify this item.

- **VIDEO LOSS SETTINGS**
  Used to set specific actions when the DVR losses the video signal for the selected camera. Refer to **Section 6.2.1** for the details.

- **MOTION DETECTION**
  Enable or disable motion detection for the selected camera. Default setting enables this feature.
  *Note : This has no effect on the **Smart Search** function.*

•MOTION SETTINGS
Used to set specific actions for when the DVR detects motion. Please refer to **Section 6.2.2** for the details.

•COVERT
If a camera's covert function is enabled, the video of this camera can only be seen if the user has logged in an **Administrator**. The default setting is disabled.

• CALL BY EVENT
If Motion or Alarm events occur for this camera, the main display will switch to the video of this camera for a specified period of time (dwell). Options are: **Off, Motion, Alarm, Both** (Motion & Alarm).

• DWELL TIME
Used in conjunction with **Call By Event**, dwell time specifies how long the main display will show the camera on the screen. The dwell time can be set from 3 to 60 seconds

• AUDIO
Select the corresponding **AUDIO IN** input for the camera. The audio for the selected **AUDIO IN** input will be recorded with the video for this camera. Selections include **N/A** or AUDIO Inputs **1** or **2**. The AUDIO INPUTS can only be assigned to one camera each. The default setting is "N/A".

Note: The audio will only be heard when in full window view and when an amplifier and speakers are connected to the DVR and the volume is turned up.

• RECORD QUALITY
Select the record quality for each camera. Values range from 1-9, with 1 the lowest quality and 9 the highest quality. The higher the quality setting, the larger the resulting file size because there are more pixels in the image.

• EVENT RECORD FPS
Set the **Frames Per Second** record rate for each camera when events such as motion or alarm inputs trigger the camera to record. Settings for Post Record time determines how long the DVR will record after the event triggers recording. Please refer to **Section 6.2.2** and **Section 6.3** for Post-record time. Press **+/-** buttons to select a value from 0 – 30.

Warning: The total Event Record FPS should not exceed the system recording capacity of 240 FPS at CIF resolution, 120 FPS at Half-D1 resolution or 60 FPS at Full-D1 resolution as set in Pre-Camera setup in Section 6.1. Confirm the system's total Event Record FPS by totaling the Event Record FPS for each camera connected to the system. The DVR will automatically lower the actual record rate (once the total maximum FPS is reached) if set beyond the system's capabilities.

Note: The higher the FPS setting for a camera, the more fluid the motion on playback. A slower FPS setting could result in "choppy" video during playback. As a reference, live video equals 30 FPS. In surveillance, 15 FPS is recognized as very good quality video, while 7 FPS is typically sufficient for most cases.

• PRE-RECORD FPS
Pre-Record FPS is the the frames per second pre-record rate for each camera when events such as motion, video loss or alarm inputs trigger the camera to record. For this DVR, the **Pre-Record FPS** is always the same as Event Record FPS. Settings for Pre-Record time determine how much time the DVR will record before the event triggers recording. Please refer to **Section 6.2.1**, **Section 6.2.2** and **Section 6.3** for Pre-record time.

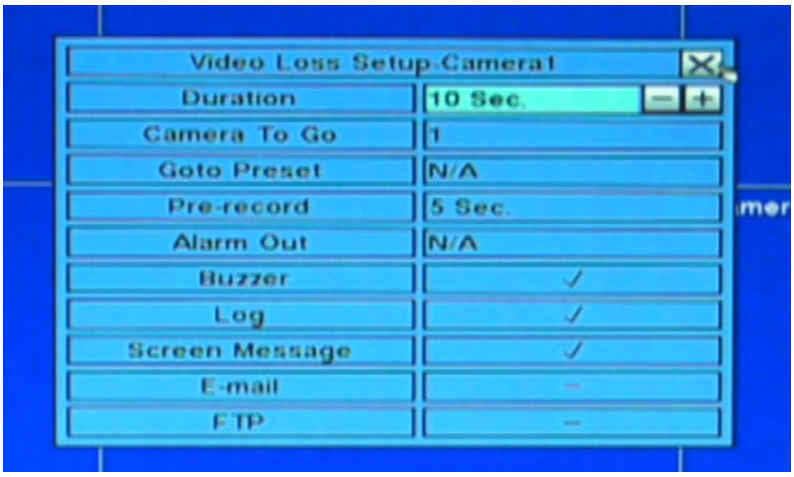
• NORMAL RECORD FPS
Unless disabled in the schedule (see **Section 6.5**), the DVR is **always** recording. If there is no event triggering the DVR to record (such as motion or alarm inputs), the DVR is still recording and the recording is referred to as **Normal Record**. Set the FPS for each camera to be recorded by pressing **+/-** buttons to select the value from a minimum of 0 to a maximum equal to the Event Record setting.

© 2012 Wirepath Surveillance

6.2.1 VIDEO LOSS SETUP

Video Loss Setup allows the administrator to define how the system responds when video signal is lost for the camera.

In the **Camera Setup** menu, highlight **Settings** in **Video Loss** and press the **ENTER** button on the front panel of the DVR or remote control to display Video Loss Setup sub menu for the selected camera.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.

- **COPY** (⎘)
  Press the **COPY** button on the front panel of the DVR or remote control to copy the Video Loss settings of the focus camera to all of the cameras.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once video loss is detected for this camera. The **buzzer** and **Alarm Out** relay will reset immediately once video signal is restored. Press **+/-** buttons to adjust the value from 3 seconds to 60 minutes or '**-**' for indefinite, requiring the Alarm Reset button to be pressed.

- **CAMERA TO GO**
  The **Camera To Go** setting will specify which PTZ camera will go to a predefined preset when video loss is detected for this camera. This feature can only be used with a PTZ camera.

- **GOTO PRESET**
  The **GOTO Preset** feature works in conjunction with the **Camera To Go** setting and defines the preset position the **Camera To Go** PTZ camera will go to when video signal is lost for this camera. For more details about preset positions for PTZ cameras, refer to **Section 7**.

- **PRE-RECORD**
  Pre-Record defines how much time the DVR will record before video loss is detected. The **Pre Record FPS** set in **Section 6.2** determines the frame rate of this recording. Press **+/-** buttons on the front panel of the DVR or the remote control to adjust the value from 0 to 10 seconds. Alternatively use the mouse to adjust this setting.

  Note that the actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.

- **ALARM OUT**
  Define which **Alarm Output** will be triggered when video loss for this camera is detected. Press **+/-** buttons to select **N/A** for none or either of the Alarm Outputs (**1** for NC or **2** for NO).

- **BUZZER**
  By default, the internal buzzer is enabled to sound when video loss for the camera is detected. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **LOG**
  By default, the DVR will log when video loss is detected to the **Event Log** (see **Section 8.2**). Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **SCREEN MESSAGE**
  By default, the DVR will display a video loss message in the **System Status Bar** when video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **E-MAIL**
  This DVR can send an email message to a predefined email address in the event video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled. See **Section 6.10.1** for more information on e-mail.

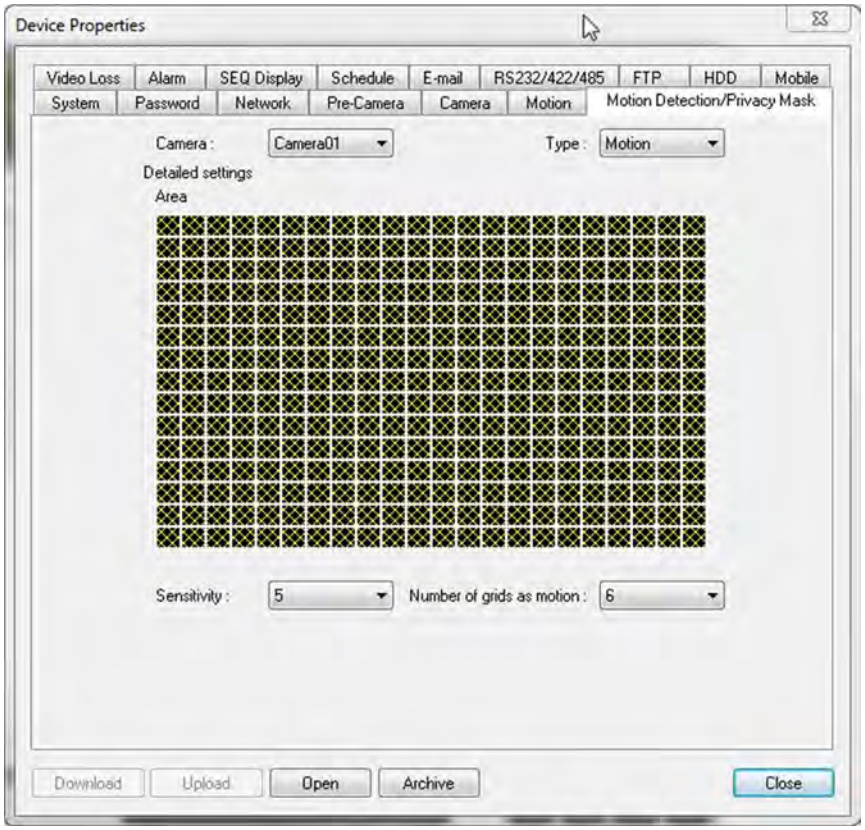
- **FTP**
  This DVR can send the recorded video loss event for this camera to a **FTP server**. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled.

© 2012 Wirepath Surveillance

6.2.2 MOTION SETUP

Motion Setup allows the administrator to define how the system responds when motion is detected for the camera.

In the **Camera Setup** menu, highlight **Motion Setup** and press the **ENTER** button on the front panel of the DVR or remote control to display the Motion Setup sub menu for the selected camera.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.

- **COPY ( )**
  Press the **COPY** button on the front panel of the DVR or remote control to copy the Video Loss settings of the focus camera to all of the cameras.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

Functions in the Sub-menu:

- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once video loss is detected for this camera. The buzzer and Alarm Out relay will reset immediately once video signal is restored. Press **+/-** buttons to adjust the value from 3 seconds to 60 minutes or '**-**' for indefinite requiring an Alarm Reset.

- **CAMERA TO GO**
  The **Camera To Go** setting will specify which PTZ camera will go to a predefined preset when video loss is detected for this camera. This feature is used in a system that includes PTZ cameras since the **Camera To Go** must be a PTZ camera.

- **GOTO PRESET**
  The **GOTO Preset** feature works in conjunction with the **Camera To Go** setting and defines the preset position the **Camera To Go** PTZ camera will go to when video signal is lost for this camera. For more details about preset positions for PTZ cameras, refer to **Section 7**.

- **PRE-RECORD**
  Pre-Record defines how much time the DVR will record before video loss is detected. The **Pre Record FPS** set in **Section 6.2** determines the frame rate of this recording. Press **+/-** buttons on the front panel of the DVR or the remote control to adjust the value from 0 to 10 seconds. Alternatively use the mouse to adjust this setting.

  Note that the actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.

- **POST-RECORD**
  Define how much time the DVR will record after motion is detected. The **Post Record FPS** set in **Section 6.2** determines the frame rate of this recording. Press **+/-** buttons on the front panel of the DVR or on the remote control to adjust the value from 0 to 60 minutes. Alternatively use the mouse to adjust this setting.

- **ALARM OUT**
  Define which Alarm Output will be triggered when video loss for this camera is detected. Press **+/-** buttons to select **N/A** for none or either of the Alarm Outputs (**1** for NC or **2** for NO).

- **BUZZER**
  By default, the internal buzzer is enabled to sound when video loss for the camera is detected. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **LOG**
  By default, the DVR will log when video loss is detected to the **Event Log** (see **Section 8.2**). Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **SCREEN MESSAGE**
  By default, the DVR will display a video loss message in the **System Status Bar** when video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **E-MAIL**
  This DVR can send an email message to a predefined email address in the event video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled. See **Section 6.10.1** for more information on e-mail.

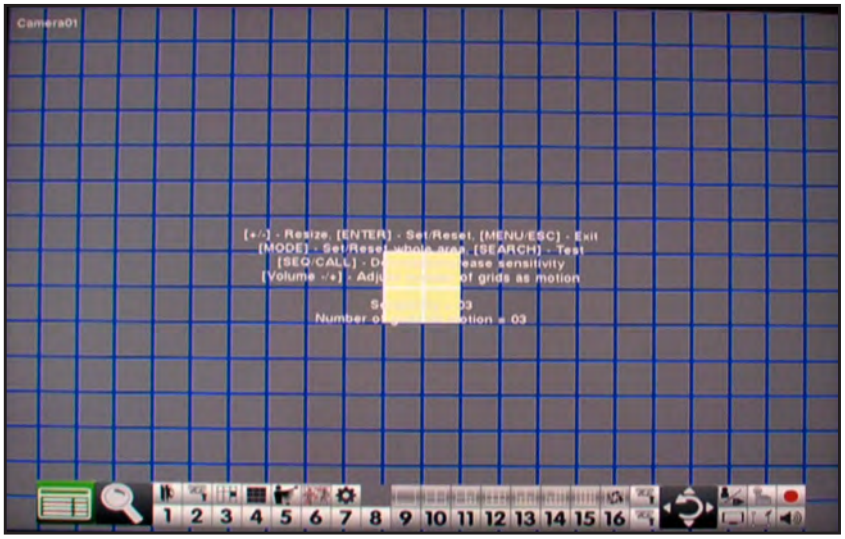
- **FTP**
  This DVR can send the recorded video loss event for this camera to a **FTP server**. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled.

© 2012 Wirepath Surveillance

6.2.2.1 DETECTION SETTINGS

The **Detection Setting** sub menu is used to customize motion detection settings including the motion detection area(s) and sensitivity. In the **Motion Setup** menu, highlight **Settings** in **Detection** and press the **ENTER** button on the front panel of the DVR or remote control to display the Motion Detection Settings sub menu for the selected camera. Once in the Motion Detection setting sub menu, a video window is displayed with the area divided into grids.

- Grids **gray** in color indicate the area which **WILL** be used for motion detection.
- **Transparent** grids indicate the area that will **NOT** be used for motion detection.
- **Yellow** grids indicate the currently selected area referred to as the **Mask** area.



*Note: The defined detection area and sensitivity are also used for the **Smart Search** feature (**Section 8.3**). Smart Search will only use information stored "inside" of the detection area. There will not be any motion information stored by the DVR that is "outside" of the detection area. Even if motion detection is disabled for a given camera, it is recommended to enable the entire area if the **Smart Search** feature may be used.*

The following is a brief description for each item in the sub menu and its specific operations:

- **NUMERIC** 1 2 3 4 5 6 7 8
  Press these buttons on the front panel of the DVR or remote control to change the camera. Alternatively use the mouse to select the desired camera.
- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to move the **Mask** window (grids **yellow** in color). Alternatively use the mouse to select and move the **Mask** window (grids **yellow** in color) by "left clicking" and dragging the mouse over the desired area.
- **+/-**
  Press these buttons on the front panel of the DVR or remote control to resize the **Mask** window (grids **yellow** in color). Alternatively use the mouse to select and move the **Mask** window (grids **yellow** in color) by "left clicking" and dragging the mouse over the desired area.
- **ENTER**
  Press this button on the front panel of the DVR or remote control to **Set/Reset** the area of the Mask window (grids **yellow** in color). Additional areas may be selected and added to the detection area. Alternatively use the mouse to select the **Set/Reset** icon and adjust the Mask window (grids **yellow** in color).
- **MODE**
  Press this button on the front panel of the DVR or remote control to **Set/Reset** the whole video area. Alternatively use the mouse to select this icon.

- **SEQ / CALL**
  Press these buttons on the front panel of the DVR or remote control to decrease (SEQ) or increase (CALL) the Sensitivity of the motion detection area of this camera from 1 – 10 (1 is least sensitive and 10 is most sensitive). Alternatively use the mouse to select this icon and adjust the sensitivity. We recommend that the default setting (3) be used to start and adjusted as needed.

- **Volume +/- (+)**
  Press these buttons on the remote control to increase or decrease the number of grids required to detect motion before the DVR will trigger motion detection recording and any associated events. Alternatively use the mouse to select this icon and adjust the number of grids.

- **SEARCH**
  Press this button on the front panel of the DVR or remote control to test the motion detection of this camera. Grids in **green** indicate that area that will detect motion. When motion is detected, these grids will change in color to **red**. Press this button again to exit testing. Alternatively use the mouse to select this icon to enter and exit testing mode.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

6.3 ALARM SETUP

The **Alarm Setup** allows the administrator to define the attributes for each alarm input and the actions if it is triggered. Up to four alarm inputs such as motion detectors or door contacts can be connected to the DVR.

In the **Setup Menu** display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **Alarm** and then press **ENTER** to display **Alarm Setup** display as shown.

© 2012 Wirepath Surveillance

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **NUMERIC**
  Press these buttons on the front panel of the DVR or remote control to select an alarm input.

- **COPY ( )**
  Press the **COPY** button on the front panel of the DVR or remote control to copy the Alarm input settings of the focus camera to all of the cameras.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **NORMAL STATE**
  Press **+/-** buttons on the front panel of the DVR or remote control to select **N/A, Close** or **Open**. The type of sensor connected to the DVR will determine the setting. For example, motion detectors typically are normally open while door contacts are normally closed. Select **N/A** (Not Available) if the input is not used and the following items will not be adjustable. The default setting is **Open**.

- **FOCUS CAMERA**
  The camera associated with the alarm input.

- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once video loss is detected for this camera. The Buzzer and Alarm Out relay will reset immediately once video signal is restored. Press **+/-** buttons to adjust the value from 3 seconds to 60 minutes or '**-**' for indefinite requiring an Alarm Reset.

- **GOTO PRESET**
  The **GOTO Preset** feature works in conjunction with the **Camera To Go** setting and defines the preset position the **Camera To Go** PTZ camera will go to when video signal is lost for this camera. For more details about preset positions for PTZ cameras, refer to **Section 7**.

- **PRE-RECORD**
  Pre-Record defines how much time the DVR will record before video loss is detected. The **Pre Record FPS** set in **Section 6.2** determines the frame rate of this recording. Press **+/-** buttons on the front panel of the DVR or the remote control to adjust the value from 0 to 10 seconds. Alternatively use the mouse to adjust this setting.

  Note that the actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.

- **POST-RECORD**
  Define how much time the DVR will record after motion is detected. The **Post Record FPS** set in **Section 6.2** determines the frame rate of this recording. Press **+/-** buttons on the front panel of the DVR or on the remote control to adjust the value from 0 to 60 minutes. Alternatively use the mouse to adjust this setting.

- **ALARM OUT**
  Define which Alarm Output will be triggered when video loss for this camera is detected. Press **+/-** buttons to select **N/A** for none or either of the Alarm Outputs (**1** for NC or **2** for NO). Alternatively use the mouse to adjust this setting.

- **BUZZER**
  By default, the internal buzzer is enabled to sound when video loss for the camera is detected. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. Alternatively use the mouse to left-click on this item.

- **LOG**
  By default, the DVR will log when video loss is detected to the **Event Log** (see **Section 8.2**). Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.
- **SCREEN MESSAGE**
  By default, the DVR will display a video loss message in the **System Status Bar** when video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item.
- **E-MAIL**
  This DVR can send an email message to a predefined email address in the event video loss is detected for this camera. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled. See **Section 6.10.1** for more information on e-mail.
- **FTP**
  This DVR can send the recorded video loss event for this camera to a **FTP server**. Highlight this setting and press **ENTER** or **+/-** to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled.

6.4 SEQ DISPLAY SETUP

The SEQ Display Setup allows the administrator to define the displayed pages when in SEQ Display mode. Options include three display types:

- 1-Window
- 4-Window
- 7-Window

In the **Setup Menu** display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **SEQ Display**, and then press **ENTER** to display **SEQ Display Setup** as shown.

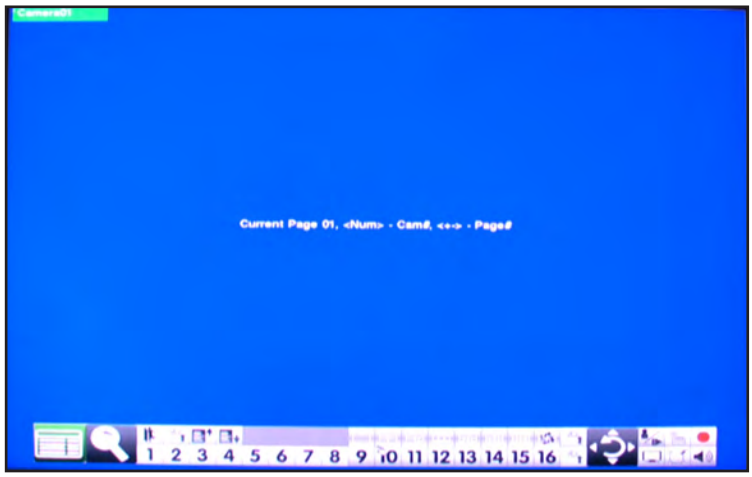
© 2012 Wirepath Surveillance

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **TOTAL PAGES**
  Set **Total Pages** included in this SEQ Display Type. Press **+/-** buttons on the front panel of the DVR or the remote control to select the desired number from the available list. Alternatively use the mouse to select the appropriate number.
- **DWELL TIME**
  Set the **Dwell Time** (how long this page will be displayed before transitioning to the next page) from 3 to 60 seconds. Press **+/-** buttons on the front panel of the DVR or remote control to change this value. Alternatively use the mouse to select the appropriate time.
- **SETTINGS**
  Enter the **Settings** window to set the camera in each window for each page of this SEQ Display Type. Press **ENTER** on the front panel of the DVR or on the remote control to display settings page as shown. Alternatively left-click on the Settings button to enter this window.



The following is a brief description of the operations in the sub menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to change the focus camera. Alternatively use the mouse to select the focus camera.
- **Numeric**

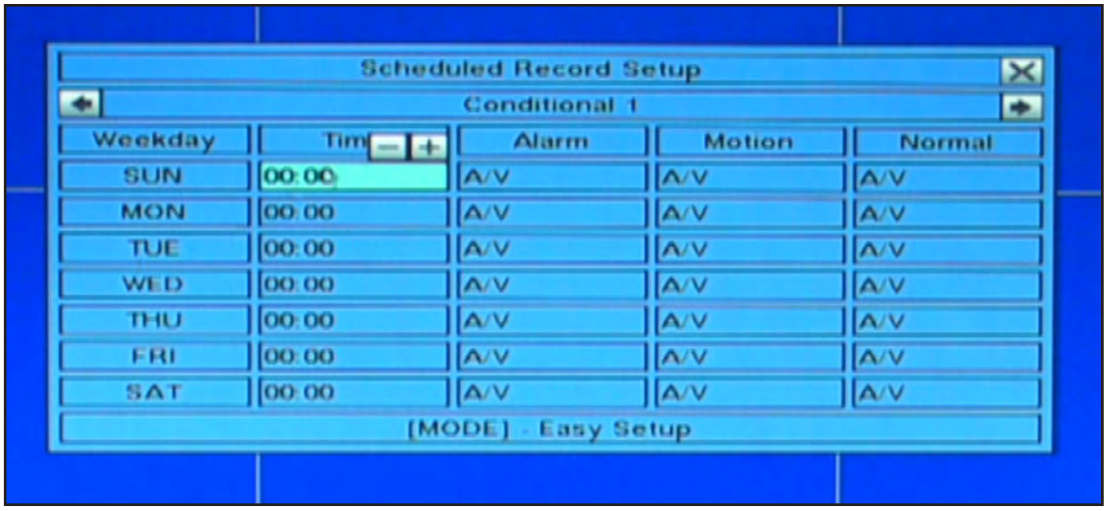
  Press these buttons on the front panel of the DVR or remote control to change the camera for this view. Alternatively use the mouse to select the desired camera.
- **+/-**
  Press these buttons on the front panel of the DVR or remote control to change the current page for this SEQ Display. Alternatively use the mouse to change the current page.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to select this icon or "right-click," and exit the sub menu.

6.5 SCHEDULED RECORD SETUP

The **Scheduled Record Setup** allows the administrator to define when and how video and audio will be recorded. This feature may be useful to increase hard drive storage space by defining what types of events are recorded on specific days of the week. For example, if **Normal Recording** (recall that the DVR is capable of always recording "normal" video even without event triggers such as motion or alarm) is not necessary, this feature can be disabled on a daily basis. To further define when and how the DVR records, up to 16 time segments (**Conditional 1 – Conditional 16**) are available for each day of the week.

In the **Setup Menu** display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **Scheduled Record**, and then press **ENTER** to display S**cheduled Record Setup**.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **COPY ( )**
  Press the **COPY** button on the front panel of the DVR or remote control to copy the settings of the focus day to other days of the week.
- **MODE**
  Press this button on the front panel of the DVR or the remote control to enter **Easy Setup** for Schedule Record as described in the following paragraphs. Alternatively use the mouse to select **Easy Setup**.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

© 2012 Wirepath Surveillance

The following is a brief description for each item in the sub menu and its specific operations:

- **START**
  Set the start time of this time segment (conditional) in increments of 30 minutes in military time format. The end time of this conditional is implicitly set as the start time of next conditional. Press the **+/-** buttons on the front panel of the DVR or the remote control to select the desired start time. Alternatively use the remote control to set the desired start time.

  Example: If the following start times are set:
  - Conditional 1 = MON at 9:00
  - Conditional 2 = MON at 18:00
  - Conditional 3 - Conditional 16 = MON as N/A (Not Available)
    --- then ---
  - Conditional 1 = MON 9:00-18:00
  - Conditional 2 = MON 0:00-9:00 **and** 18:00-24:00

- **ALARM**
  Define if Alarm events are recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification. Press **+/-** buttons on the front panel of the DVR or remote control to change the value. Alternatively use the mouse to adjust these options.

- **MOTION**
  Define if Motion events are recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification. Press **+/-** buttons on the front panel of the DVR or remote control to change the value. Alternatively use the mouse to adjust these options.

- **NORMAL**
  Define if normal video and audio (non-event based video and audio) is recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification. Press **+/-** buttons on the front panel of the DVR or remote control to change the value. Alternatively use the mouse to adjust these options.

  Note: If both Alarm and Motion are set to OFF then all video and audio recordings will be considered "normal recording" unless there is Video Loss for a particular camera.

6.5.1 SCHEDULED RECORD – EASY SETUP

Within the **Scheduled Record** menu, **Easy Setup** allows the administrator to use a more visual method to setup the scheduled record of the system.

Press the **Mode** button on the front panel of the DVR or the remote control to select **Easy Setup** from the **Scheduled Record** menu. Alternatively use the mouse to select this sub menu.

Recording options include:

- **Pink:** Alarm, Motion and Normal Video and Audio Recording (Default setting)
- **Purple:** Alarm and Motion Video and Audio Recording only
- **Red:** Alarm Video and Audio Recording only
- **Blue:** Motion Video and Audio Recording only
- **Green:** Normal Video and Audio Recording only
- **Black:** No recording at all

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to change the focus recording type. Alternatively use the mouse to select the focus recording type.

- **Numeric 1-6**
  Press these buttons on the front panel of the DVR or the remote control to select one of the **Recording Modes** listed above. Or press the **ENTER** button on the front panel of the DVR or remote control when the focus is on the appropriate Recording Mode to activate it. Alternatively use the mouse to select the appropriate Recording Mode.

- **+/-**
  Press these buttons to set the focus interval in increments of one hour (one grid for each hour) to the active Recording Mode. Or press the **ENTER** button on the front panel of the DVR or remote control set the focus interval to the active Recording Mode. Alternatively use the mouse to left-click and then drag the mouse to select the appropriate grids.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the Scheduled Record Setup display menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." **Once Easy Setup is complete, the time segments for each conditional in Scheduled Record will be updated accordingly**.

6.6 HARD DISC DRIVE (HDD) SETUP

In surveillance applications, typically alarm triggered video and audio is considered more important than non-event normal video and audio recording. This DVR is designed to allow the hard drive to be partitioned into an alarm partition and a normal partition. Alarm video and audio will be recorded in alarm partition and normal video and audio will be recorded in the normal partition.

HDD Setup allows the administrator to format/clear the hard drive, set Alarm Record partition size and Normal Record partition size, and define the behavior for Alarm Record and Normal Record partion if the hard drive becomes full.

In the Setup Menu display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to HDD, and then press ENTER to display **HDD Setup** as shown.

© 2012 Wirepath Surveillance

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **MODE**
  Press this button on the front panel of the DVR or the remote control to **Format/Clear** the HDDs as described in **Section 6.6.1**. Alternatively use the mouse to select this option.
- **SEQ**
  Press this button on the front panel of the DVR or the remote control to enter **Advanced HDD Setup** as described in **Section 6.6.2**. Alternatively use the mouse to select this option.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

- **Size (GB)**
  The total hard drive storage capacity in GBs (gigabytes) for the Alarm Record partition and Normal Record partition respectively. Refer to **Section 6.6.1** for more detailed information and setup of each individual hard drive partition.
  Note: if the total Alarm Record partition size is zero, alarm video and audio will be recorded in Normal Record partition. Conversely, if the total Normal Record partition size is zero, normal video and audio will be recorded in Alarm Record partition.
- **Auto Overwrite**
  By default, the DVR will automatically overwrite recorded video and audio hard drive reaches its capacity.
  WARNING - If Auto Overwrite is disabled and the hard drive capacity reaches its maximum, the system will NOT overwrite recorded video and audio. Therefore the DVR will NOT record Alarm or Normal video or audio until the user presses the Alarm Reset button.
  Press **ENTER** or **+/-** on the front panel of the DVR or the remote control to disable this setting. Alternatively use the mouse to make this change.
- **HDD Full Action**
  If Auto Overwrite is disabled, the DVR can sound the buzzer, log the event and email an alert when the hard drives reaches its maximum capacity. Press **ENTER** or **+/-** on the front panel of the DVR or the remote control to disable this setting. Alternatively use the remote control to make this change

- **Duration**
  If **HDD Full Action** is enabled, set the duration that the Alarm Out relay and the buzzer will remain triggered when the corresponding partition is full. Press **+/-** buttons on the front panel of the DVR or on the remote to adjust the time from 3 seconds or 60 minutes or '**-**' indefinitely until the **Alarm Reset** button is pressed.

- **Alarm Out**
  Define which **Alarm Output** will be triggered when the corresponding partition is full. Press **+/-** buttons on the front panel of the DVR or on the remote control to select **N/A** or one of the Alarm Outputs - **NC** (1) or **NO** (2).

- **Buzzer**
  By default, the internal buzzer is enabled to sound when the corresponding hard drive partition is full. Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item.

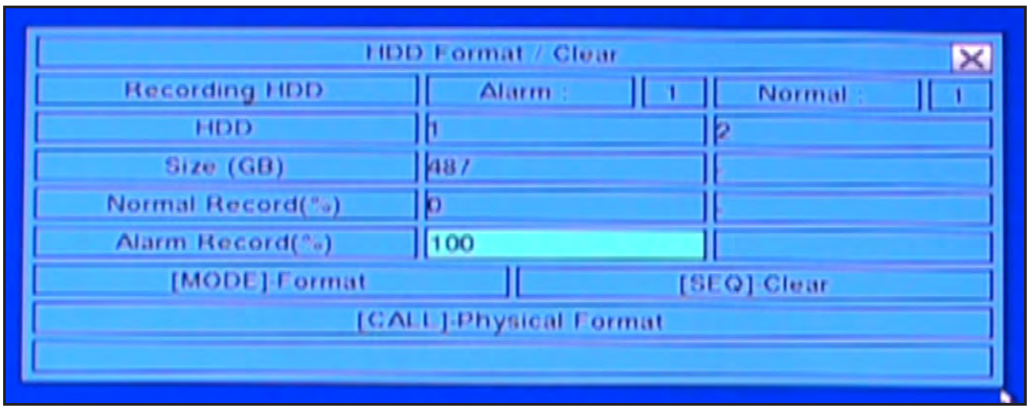
- **Log**
  By default, the DVR will log when the corresponding hard drive partition is full to the event **Log** (see **Section 8.2**). Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item.

- **E-mail**
  Send an email message to a predefined email address when corresponding hard drive partition is full. Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled. See **Section 6.10.1** for more information on e-mail.

6.6.1 HDD FORMAT/CLEAR

The **HDD Format/Clear** menu allows the administrator to format and/or clear the hard drive. The administrator can also set the size for the Alarm Record partition and the Normal Record partition.

In **HDD Setup** display, press **MODE** to display **HDD Format/Clear** screen as shown.



To navigate and operate this menu:

- **MODE**
  Press the **Mode** button on the front panel of the DVR or the remote control to **Format** the hard drive (similar to a Quick Format option found on a PC). A confirmation dialog box will be displayed on the screen. Using the front panel of the DVR or the remote, press **ENTER** to confirm or **ESC** to cancel. Alternatively use the mouse to make these selections.

- **SEQ**
  Press the **SEQ** button on the front panel of the DVR or on the remote to **Clear** (delete all files) the hard drive. A confirmation dialog box will be displayed on the screen. Using the front panel of the DVR or the remote, press **ENTER** to confirm or **ESC** to cancel. Alternatively use the mouse to make these selections.

© 2012 Wirepath Surveillance

- **CALL**
  Press the **Call** button on the front panel of the DVR or the remote control to **Physically Format** the hard drive (similar to a "full" Format option found on a PC). A confirmation dialog box will be displayed on the screen. Using the front panel of the DVR or the remote, press **ENTER** to confirm or **ESC** to cancel. Alternatively use the mouse to make these selections.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**."
  If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:

- **SIZE (GB)**
  The total hard drive storage capacity in GBs (gigabytes) for the Alarm Record partition and Normal Record partition respectively.

- **ALARM RECORD (%)**
  Set the Alarm Record Size (in percentage) for the hard drive. Please follow the Text Input method described in **Section 4.1** to change the percentage.

  Note: If the total Alarm Record partition size is zero, alarm video and audio will be recorded in Normal Record partition.

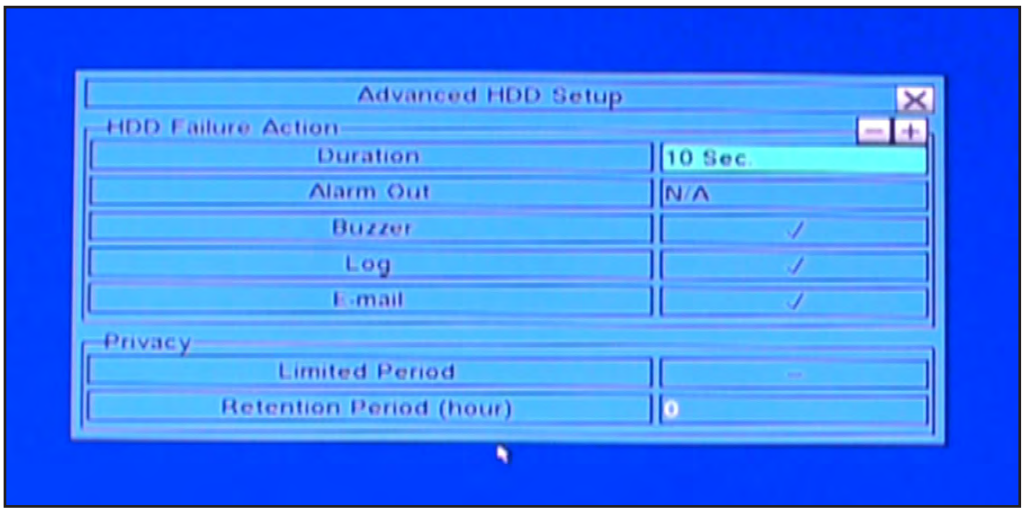
- **NORMAL RECORD (%)**
  Set the Normal Record Size (in percentage) for the hard drive. Please follow the Text Input method described in **Section 4.1** to change the percentage.

  Note: If the total Normal Record partition size is zero, normal video and audio will be recorded in Alarm Record partition.

6.6.2 ADVANCED HDD SETUP

The **HDD Failure Action** in Advanced HDD Setup allows the administrator to define how the system responds to hard drive failure. The HDD Failure Action will be triggered if there's no available formatted hard drive detected.

In **HDD Setup** display, press **SEQ** on the front panel of the DVR or on the remote control to display **Advanced HDD Setup** menu.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the ESC button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**."
  If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:

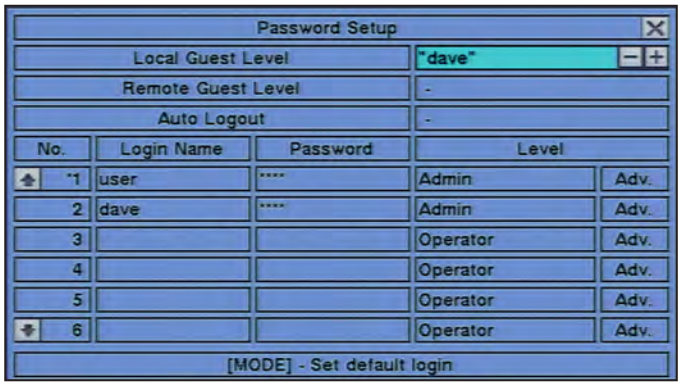
- **DURATION**
  Set the duration that the Alarm Out relay and the buzzer will remain triggered after the hard drive failure is detected. Press **+/-** buttons on the front panel of the DVR or on the remote to adjust the time from 3 seconds or 60 minutes or '**-**' indefinitely until the **Alarm Reset** button is pressed.
- **ALARM OUT**
  Define which Alarm Output will be triggered after the hard drive failure is detected. Press **+/-** buttons on the front panel of the DVR or on the remote control to select **N/A** or one of the Alarm Outputs - **NC** (1) or **NO** (2).
- **BUZZER**
  By default the internal buzzer is enabled to sound after the hard drive failure is detected. Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item.
- **LOG**
  By default the DVR will log when the hard drive failure is detected to the **Event Log** (see **Section 8.2**). Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item.
- **E-MAIL**
  Send an email message to a predefined email address when the hard drive failure is detected. Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item. The default setting is disabled. See **Section 6.10.1** for more information on e-mail.
- **LIMITED PERIOD**
  This option will limit the time period in hours for how long recorded video and audio remains on the hard drive. By default this feature is disabled. Highlight this setting and press **ENTER** or **+/-** on the front panel of the DVR or the remote control to enable or disable this item. Alternatively use the mouse to left-click on this item.
- **RETENTION PERIOD (HOUR)**
  If the **Limited Period** option is enabled, set the **Retention Period** of how long the hard drive will store the recorded video and audio. Please follow the Text Input method described in **Section 4.1** to modify this setting. If set to 0, it will be treated as No Limited Period.

© 2012 Wirepath Surveillance

6.7 PASSWORD SETUP

The Password Setup allows the administrator to add new users, delete existing users, and/or modify the user login names, password, and levels of access. And allows automation system access

In the Setup Menu display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to Password, and then press ENTER to display Password Setup as shown.



The DVR allows up to **18** user accounts. There are three default user levels in the system:

- **Operator** – The lowest level, an Operator can only view live video and audio
- **Supervisor** – In addition to live video viewing, a Supervisor can review playback video and audio and has permission to archive files
- **Administrator** – The highest level is Administrator and has access to all options.
- **" – "** – No remote access allowed
- **UserName** –In addition to the three default levels, an administrator can also set **Customized** levels of access for each user as described in the following paragraphs.

The factory preset Administrator level login name is user, the password is 1234. We recommend changing this to block unwanted access to the DVR.

To navigate and operate this menu:

- **▲▼◄►**

Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.

- **MODE**

Press the **Mode** button on the front panel of the DVR or on the remote control to select a user as the **default** at login. An asterisk (*) will be shown preceding the number for the default login user. This user's login name and password will be the default credentials populated in the **Login/Logout** dialog box so the user doesn't have to enter text to login the system. This feature is enabled by default. Press the **Mode** button to deselect the user as the default login user. Alternatively use the mouse to select and deselect default log in users.

WARNING – This feature could allow unwarranted access to the DVR. Caution is strongly advised when enabling this feature. Setting a default login means that the user login name and password will automatically populate the Login/Logout box. This could leave the system vulnerable to unauthorized use. It is recommended to deselect a default login so users are required to provide credentials to access the DVR.

- **ESC**

Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:
WARNING – The following 2 features could allow unwarranted access to the DVR. Caution is strongly advised when enabling these features.

Important Note: The following 2 features were added in software v7.77.53 and were listed as Guest Level in previous versions. When the DVR is updated, the setting previously set in guest level will show as Remote Guest level. Verify that it is set to the desired level.

- **Local Guest Level**

Allows or restricts access to the DVR by Guests accessing the DVR through Local interfaces (DVR GUI via front panel buttons, IR remote control or home automation Ethernet control) without a dedicated Login. The option selected determines the level of access a Guest will have.

"-" (Default - No Guest Access Allowed
Administrator - Provides full access to the DVR allowing for viewing of all cameras and modification to all settings. Use this setting with caution.
Supervisor - Provides access to view and control all cameras, Search, Archive and modify basic settings.
Operator - Provides access to view and control all cameras. No access to Search or settings is provided.
UserName - Provides customized access to the features as defined in the Advanced Settings for a particular user. See Adv: below for more information.

Note: If an RS-232 or IP control system is being used, the Default setting allows the system to control the DVR, but prevents Guest access to DVR features. With this setting users would be required to enter a Login and Password to view cameras, change settings, etc.

• Remote Guest Level
Allows or restricts access to the DVR by Guests accessing the DVR from the Internet Explorer plugin interface without a dedicated Login. The option selected determines the level of access a Guest will have.

"-" (Default) - No Guest Access Allowed (Does not prevent access by User with login credentials)
Administrator - Provides full access to the DVR allowing for viewing of all cameras and modification to all settings. Use this setting with caution.
Supervisor - Provides access to view all control all cameras, Search, and modification of basic settings.
Operator - Provides access to view all control all cameras, No access to Search or settings is provided.
UserName - Provides access to the features defined in the Advanced Settings for a particular user. See Adv: below for more information.

• Auto Logout
If there is no user operation in the time selected from 1 minute to 24 hours, the user will automatically be logged out. Select "-" to disable this feature (default setting). Press +/- buttons on the front panel of the DVR or on the remote control to change this setting. Alternatively use the mouse to set this value.

• Login Name
Enter a unique Name for each user. Follow the Text Input method described in Section 4.1 to enter this information.

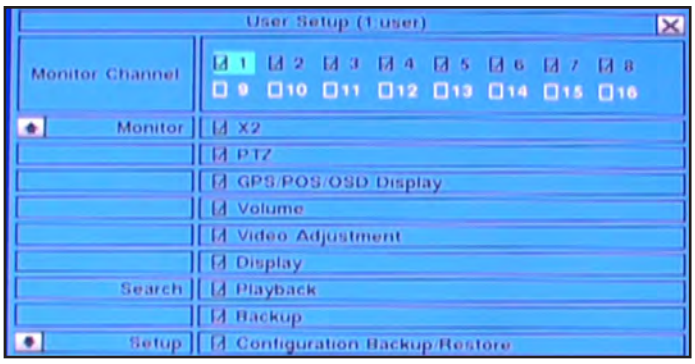
• Password
Enter a unique Password (numbers only) for each user. Follow the Text Input method described in Section 4.1 to enter this information.

• Level
Select the appropriate access level (Administrator, Supervisor, Operator, or Customized) for each user. Press +/- buttons on the front panel of the DVR or on the remote control to change this level. Alternatively use the mouse to set the level.

"-" (Default) - No Guest Access Allowed
Administrator -Provides full access to the DVR allowing for viewing of all cameras and modification to all settings. Use this setting with caution.
Supervisor - Provides access to view and control all cameras, Search, Archive and modify basic settings.
Operator - Provides access to view and control all cameras. No access to Search or settings is provided.
Customized - Provides access to the features as defined in the Advanced Settings for the user. See Adv: below for more information.

Note: It is recommended that Remote Guest Level be set to the the default "-" to prevent unwanted access to the DVR from outside sources.

• Adv .
For Customized access per user, press ENTER on the front panel of the DVR or on the remote control to display the Advanced User Setup as shown in Section 6.7.1 below.



© 2012 Wirepath Surveillance

6.7.1 ADVANCED USER SETUP

The **Advanced User Setup** allows the administrator to setup each user's detailed access rights to the system**.**

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or on the remote control to move the focus box. If the selected item is not shown on the screen, the screen will scroll up or down by pressing the corresponding button. Press the **ENTER** button to enable or disable a feature.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or on the remote control to escape from this screen and return to **Password Setup** display. Alternatively right-click the mouse. **User Setup** contents will be updated accordingly.

The following is a brief description for each item in this menu and its specific operations:

Press **ENTER** or **+/-** on the front panel of the DVR or on the remote control to check or uncheck each item. Alternatively use the mouse to enable or disable each item.

- **Monitor Channel 1-8**
  Select Channels (cameras) the user can monitor.
- **X2**
  Allows the user to zoom live and playback video.
- **PTZ**
  Allows the user to access PTZ features if supported by the camera.
- **VOLUME**
  Allows the user to change volume.
- **VIDEO ADJUSTMENT**
  Allows the user to adjust the video
- **VGA DISPLAY**
  Allow the user to change VGA settings.
- **PLAYBACK**
  Allows the user to view playback video and audio.
- **BACKUP**
  Allows the user to backup video and audio.
- **CONFIGURATION BACKUP/RESTORE**
  Allows the user to backup or restore the DVR configuration.
- **SETUP CAMERA**
  Allows the user access to Camera Setup.
- **SETUP ALARM**
  Allows the user access to Alarm Setup.
- **SETUP SEQ DISPLAY**
  Allows the user access to Sequence Display setup.
- **SETUP SCHEDULED RECORD**
  Allows the user access to Scheduled Record setup.
- **SETUP HDD**
  Allows the user access to Hard Drive setup.
- **SETUP PASSWORD**
  Allows the user access to Password Setup.
- **SETUP SYSTEM**
  Allows the user access to System Setup.

- **SETUP RS-232/422/485**
  Allows the user access to RS485 setup.
- **SETUP NETWORK**
  Allows the user access to Network Setup.
- **SETUP FACTORY DEFAULTS**
  Allows the user to restore factory defaults to all setup related configurations.
- **SOFTWARE UPGRADE**
  Allows the user upgrade the DVR software.
- **SHUTDOWN**
  Allows the user to Shutdown the DVR.

6.8 SYSTEM SETUP

The **System Setup** allows the administrator to set the system time, time zone, time synchronization, language, etc.

In the **Setup Menu** display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to System, and then press **ENTER** to display **System Setup** as shown.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

© 2012 Wirepath Surveillance

The following is a brief description for each item in this menu and its specific operations:

- **TIME ZONE**
  Press the **+/-** buttons on the front panel of the DVR or on the remote control to select the appropriate time zone. Alternatively use the mouse to select the time zone. The default setting is Eastern Standard Time.
- **DAYLIGHT SAVING TIME**
  Press **ENTER** or **+/-** on the front panel of the DVR or on the remote control to enable or disable this item. Alternatively use the mouse to enable or disable this feature.
- **SYSTEM TIME**
  - **Synchronization**
    Press **ENTER** or **+/-** buttons on the front panel of the DVR or on the remote control to enable or disable time synchronized with a **TSP Server**. Alternatively use the mouse to enable or disable this feature. The default setting is disabled.
  - **TSP Server**
    If Time Synchronization is enabled, select a **TSP** (Time Synchronization Protocol) **Server**. The DVR will synchronize with the specified TSP server at the system preset interval. Please follow the Text Input method described in **Section 4.1** to modify this setting. Alternatively use the mouse and the pop-up keyboard to enter the TSP server.
  - **Date**
    System **Date**. Press **+/-** buttons on the front panel of the DVR or on the remote control to modify the date. Alternatively use the mouse to set the date.
  - **Time**
    System **Time**. Press **+/-** buttons on the front panel of the DVR or on the remote control to modify the time. Alternatively use the mouse to set the date.
  - **Display Format**
    Select the format used to display the system time in the **System Status Bar**. Press **+/-** buttons on the front panel of the DVR or on the remote control to change the format. Alternatively use the mouse to select the format.
- **LANGUAGE**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the language. Alternatively use the mouse to select the appropriate language.
  Note: If the selected language is changed, the user will be asked to reboot the system for the newly selected language to take effect.
- **PROTECTION KEY**
  The **Protection Key** is used for secure remote access of the system by various software. Follow the Text Input method described in **Section 4.1** to modify these items. Alternatively use the mouse and the pop-up keyboard to enter the Protection Key.
  *Note: The **Protection Key** will be used by some software for authentication when a remote computer wants to connect with the system through the Ethernet interface, either LAN or internet. The same protection key must be entered to install the remote software if it is to be used to access the DVR.*

6.9 RS485 SETUP

The **RS-232/422/485 Setup** allows the administrator to setup the RS-485 control port. Please refer to the manuals for the connected devices (typically PTZ cameras) to properly set the options in **RS-232/422/485 Setup**.

In the **Setup Menu** display, press ▲▼◄► on the front panel of the DVR or on the remote to change the highlighted option to **RS-232/422/485**, and then press **ENTER** to display **RS-232/422/485 Setup** as shown.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:

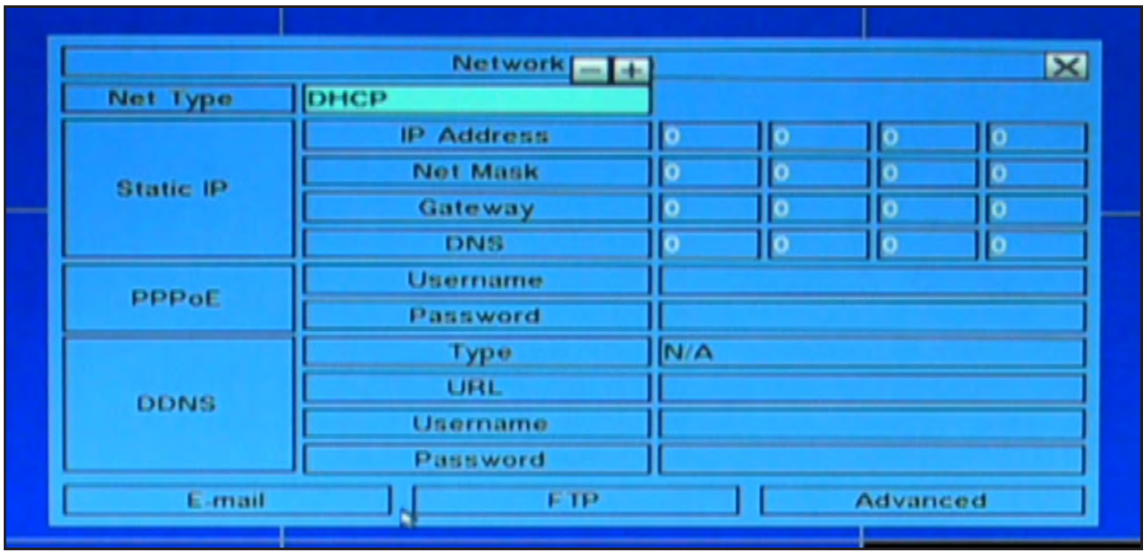
- **DEVICE TYPE**
  Press the **+/-** buttons on the front panel of the DVR or on the remote control to change the device type to **PTZ, Keyboard, PTZ+Keyboard or N/A** (Not Available). Alternatively use the mouse to select the appropriate setting.
- **MODEL**
  PTZ model (**for PTZ and PTZ+Keyboard**) refers to the type of the connected devices. The PTZ models supported include **Pelco D Protocol Dome, Samsung SCC-641P, Kalatel Cyber Dome, PIH-series, Dynacolor, Bosch AutoDome, Video Trek**, etc. The Keyboard models supported include **Terminal** (EX. VT-100) and **Control Protocol**. Press **+/-** buttons to change the supported model (or protocol).

  Note: If the PTZ+Keyboard is selected for Device Type, the Keyboard model is always Control Protocol, and the other settings (Baud Rate, Data Bit, Stop Bit, and Parity) are the same as the PTZ Model selected. In addition, be sure that the Keyboard Control Protocol and the PTZ Protocol won't conflict with each other.
- **BAUD RATE**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the **Baud Rate**. Alternatively use the remote control to change this setting.
- **DATA BIT**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the **Date Bit**. Alternatively use the remote control to change this setting.
- **STOP BIT**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the **Stop Bit**. Alternatively use the remote control to change this setting.
- **PARITY**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the parity to **Odd, Even,** or **None**. Alternatively use the remote control to change this setting.
- **DVR/CAMERA ID**
  Set the **PTZ ID** for the DVR. It must not conflict with other devices connected to the RS485 network. Press **+/-** buttons to change the ID. Alternatively use the remote control to change this setting.

© 2012 Wirepath Surveillance

6.10 NETWORK SETUP

The Network Setup allows the administrator to setup all Ethernet network related parameters. Consultation with the network administrator may be required to set these parameters correctly.
In the Setup Menu display, press ▲▼◄► on the front panel of the DVR or on the remote to change the high-lighted option to Network, and then press ENTER to display Network Setup as shown.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "X." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click" and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations.

Please follow the Text Input method described in **Section 4.1** to modify these items. Alternatively use the mouse and the pop-up keyboard to enter these settings. Consultation with the network administrator may be required for these settings.

- **NET TYPE**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the **Net Type**. Alternatively use the mouse to change this setting. Options include: **Static IP**, **PPPoE**, or **DHCP**. **DHCP** can only be used for intranet (LAN) access, while **Static IP** and **PPPoE** can be used for both internet & intranet access. The default setting is **DHCP**.
- **IP ADDRESS**
  Enter an **Ethernet IP Address** for the DVR. This address should not conflict with any other IP address on the LAN.
- **NET MASK**
  Enter the **Net Mask** for the IP address.
- **GATEWAY**

Enter the **Gateway** IP address for the system.

- **DNS**
  If using **DNS**, enter the Domain Name Server address for the system.
- **USERNAME**
  If PPPoE is used, enter the **Username** for the system.
- **PASSWORD**
  If PPPoE is used, enter the **Password** for the system.
- **DDNS TYPE**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to select the Dynamic Domain Name Server type to **Dynamic, Static,** or **Custom DDNS** type. Contact the DDNS Service Provider to get the DDNS type, DDNS URL, username, and password, or refer to Appendix E for details on how to use the free service from DynDns.
- **URL**
  Enter the DDNS **URL** if DDNS is used.
- **DDNS USERNAME**
  Enter the DDNS **Username** if DDNS is used.
- **DDNS PASSWORD**
  Enter the DDNS **Password** if DDNS is used.
- **E-MAIL**
  Press **ENTER** on the front panel of the DVR or on the remote to display the **E-mail Setup** menu. Alternatively use the mouse to enter this menu. Refer to **Section 6.10.1** for details.
- **FTP**
  Press **ENTER** on the front panel of the DVR or on the remote to display the **FTP Setup** menu. Alternatively use the mouse to enter this menu. Refer to Section **6.10.2** for details.
- **ADV.**
  Press **ENTER** on the front panel of the DVR or on the remote to display the **Advanced Network Setup** menu. Alternatively use the mouse to enter this menu. Refer to **Section 6.10.3** for details.

6.10.1 E-MAIL SETUP

The **E-mail Setup** allows the administrator to set e-mail related parameters. When an event occurs and E-mail is enabled for the corresponding action, an e-mail will be sent based on the parameters set in this menu.

In **Network Setup**, press **ENTER** to display **E-mail Setup** as shown when the highlighted option is **E-mail**.

© 2012 Wirepath Surveillance

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in the sub menu and its specific operations:

Follow the Text Input method described in **Section 4.1** to modify these items. Alternatively use the mouse and the pop-up keyboard to enter these settings. Consultation with the network administrator or the email provider may be required for these settings.

- **SMTP SERVER**
  Enter the **SMTP** mail server name.
- **SMTP PORT**
  Enter the **SMTP Port** for e-mail transmission. The default value is **25**.
- **AUTHENTICATION**
  Press **ENTER** or **+/-** on the front panel of the DVR or on the remote control to enable or disable this item depending on whether the SMTP mail server requires authentication. Alternatively use the mouse to enable or disable this setting.
- **USERNAME**
  Enter the **Username** to the email service.
- **PASSWORD**
  Enter the **Password** to the email service.
- **MAIL FROM**
  Enter the e-mail address of the associated email account

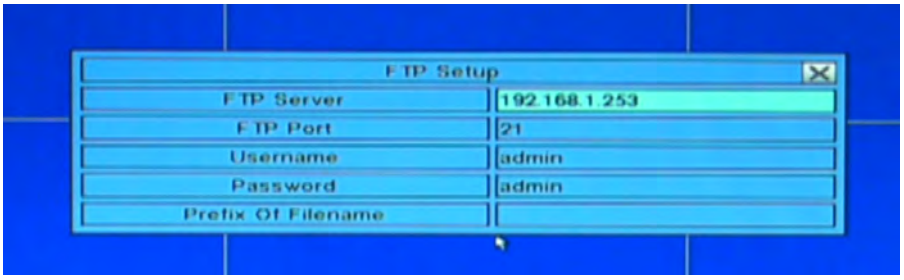
  Note: This setting is specific and must match email client settings used to access an email account or the email feature will not be operable. Do not enter generic text in this field.
- **MAIL TO #1-5**
  The DVR can send e-mails originated from triggered events to up to five different email addresses. Enter the appropriate e-mail addresses in these fields.
- **ATTACHMENT**
  Press **+/-** buttons on the front panel of the DVR or on the remote to attach a picture from the corresponding camera to e-mail being sent. Optional picture sizes for the attachment can be set to **Original** to match the recorded resolution or **QCIF** (Quarter CIF is 176 x 144 pixels) to reduce the size of the attachment. Select **N/A** to disable attachments.

  Note: If the DVR's resolution is set to Half D1, picture attachments in the e-mail will appear "squished" since the DVR reduces the horizontal lines by half (therefore reducing storage space and bandwidth requirements). This only effects e-mails and not live or recorded .h264 playback video.

6.10.2 FTP SETUP

FTP Setup allows the administrator to set FTP related parameters. When an event occurs and FTP is enabled for the action, the recorded video and audio for that event will be sent to the FTP server based on the parameters set in this menu.

In Network Setup, press **ENTER** to display **FTP Setup** as shown when the highlighted option is **FTP**.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:

Please follow the Text Input method described in **Section 4.1** to modify these items. Alternatively use the mouse and the pop-up keyboard to enter these settings. Consultation with the network administrator or the FTP server provider may be required for these settings.

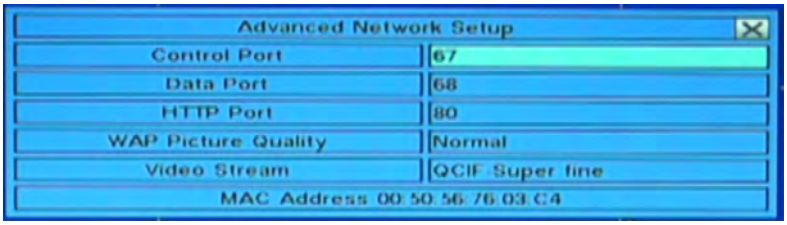
- **FTP SERVER**
  Enter the **FTP Server** web/IP address.
- **FTP PORT**
  Enter the **FTP Port** number. The default value is **21**.
- **USERNAME**
  Enter the **Username** for the FTP server.
- **PASSWORD**
  Enter the **Password** for the FTP server.
- **PREFIX OF FILENAME**
  Enter the **Prefix of the Filenames** for files sent to the FTP server. If this box is left empty, the filenames will start with "cam" If a prefix such as "Prefix" is entered, the filenames will start with "Prefix-cam." For another example, if the prefix is "DVR01", then the filenames will begin with "DVR01-cam."

© 2012 Wirepath Surveillance

6.10.3 ADVANCED NETWORK SETUP

The **Advanced Network Setup** allows the administrator to set advanced network parameters use for connection from remote devices such as PCs and Smart phones. Consultation with the network administrator may be required for these settings.

In Network Setup, press **ENTER** to display **Advanced Network Setup** as shown when the highlighted option is **Adv**.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the main menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." If the contents in this menu have been modified, a **Save** dialog box will be displayed requesting the user to save the changes. Press **ENTER** on the front panel of the DVR or remote control to exit and save, **ESC** to exit without saving. Another method to escape is to use the mouse to "right-click," and exit the sub menu.

The following is a brief description for each item in this menu and its specific operations:

Please follow the Text Input method described in **Section 4.1** to modify these items. Alternatively use the mouse and the pop-up keyboard to enter these settings. See **Appendix F** for more information on **Router Setup** and how it relates to these settings.

- **CONTROL PORT**
  Enter the **Control Port** for remote access. The default value is **67**.
- **DATA PORT**
  Enter the **Data Port** for remote access. The default value is **68**.
- **HTTP PORT**
  Enter the **HTTP (web page) port** for remote access. The default value is **80**.
- **WAP PICTURE QUALITY**
  WAP (Wireless Application Protocol) is a simple standard for remote devices (such as Smart phones) to access the DVR. Press **+/-** buttons on the front panel of the DVR or on the remote control to change the value the WAP picture quality if WAP access will be required by remote devices. See **Section 9.6** for more information on WAP.
- **VIDEO STREAM**
  Press the **+/-** buttons on the front panel of the DVR or on the remote to change the video quality sent to remote devices such as PCs and Smartphones. Alternatively use the mouse to change this setting. If **Record** is selected, the DVR will stream video at the same resolution as the Record setting (See **Section 6.1**). Dual Streaming allows for remote devices to receive lower resolution at higher speeds to the device (see **Section 9.4**). This is especially helpful for remote devices on slower network. Reducing resolution sent to these devices will speed up the delivery of the video. To enable Dual Streaming, select one of the four levels of **QCIF** (**Fair** is the lowest quality while **Superfine** is the highest quality). If Dual Streaming is used, the total system recording rate will be reduced.

  *Note: To use Dual Streaming in Internet Explorer, the user must select the **Extra** Video Stream option in the **Modify Menu** of the **Device List** (See **Section 9.1**).*

- **QCIF Fair** = equivalent to a Record Quality of 1 on the Camera tab
- **QCIF Normal** = equivalent to a Record Quality of 4 on the Camera tab
- **QCIF Fine** = equivalent to a Record Quality of 6 on the Camera tab
- **QCIF Super fine** = equivalent to a Record Quality of 9 on the Camera tab

6.11 FACTORY DEFAULT

To reset all the DVR settings to factory default values, press ▲▼◄► on the front panel of the DVR or on the remote control to change the highlighted option to Factory Default and then press **ENTER**. Alternatively use the mouse to select **Factory Default**. Once selected, a confirmation dialog will be shown, press **ENTER** again to make the changes. Or select **ESC**, or right-click the mouse to exit without resetting the DVR.

WARNING: All settings will be lost and replaced with factory default settings.
Settings cannot be recovered after a Factory Default.

© 2012 Wirepath Surveillance

7. PTZ CONTROL

The DVR supports a variety of PTZ cameras. The user can easily control PTZ cameras through the operations described in this section if the PTZ cameras have been connected and setup properly. Refer to **Section 3.2 Optional Connections** for the connections, **Section 6.1 Pre-Camera Setup** to set the PTZ ID of each PTZ camera, and Section **6.9 RS-232/422/485 Setup** to setup the RS485 control port.

If a camera is setup as a PTZ camera, an asterisk (✻) will precede the camera title in the video window. Select the **PTZ Control** icon to enter PTZ control mode if the focus camera is a PTZ camera. The asterisk (✻) will change to inverse color to indicate that the camera is now in PTZ control mode, and the **PTZ Control Bar** will be displayed:

Once in PTZ control mode, the user's operations can be divided into **General Operations** and **Function Specific Operations** described as the following:

General Operations:

- **PTZ**
  Press this button on the remote control to **Enter** and **Exit** PTZ control mode. The asterisk (✻) preceding the camera title in the video window will change back to normal color.
- **▲▼**
  Press these buttons on the front panel of the DVR or on the remote control to tilt the camera up or down. Alternatively left-click the mouse in the top of the video window to tilt the camera up, or left-click the mouse in the bottom of the video window to tilt the camera down.
- **◄►**
  Press these buttons on the front panel of the DVR or on the remote control to pan the camera left or right. Alternatively left-click the mouse in the left side of the video window to pan the camera left, or left-click the mouse in the right side of the video window to pan the camera right.
- **ZOOM (🔍) +/-**
  Press these buttons on the front panel of the DVR or on the remote control to zoom the camera in or out. Alternatively use the mouse to select the zoom icons.
- **GOTO**
  Press the **GOTO** button on the remote control to move the camera to a preset position. Press numeric buttons on the remote control **(0-9)** to enter the number of the preset position to move the camera to. The range of the preset positions is 00-99. Alternatively use the mouse to select the **GOTO** icon and the preset.

Function Specific Operations:

- **NEXT**
  Press this button for the **Next** function specific operation. The functions specific operations include **Focus, Iris, Auto PAN, SEQ, Preset**, and **Pan Speed**. The active function specific operation will be shown on the lower right corner of the screen. The miscellaneous function specific operations are described in the following table.

• **ZOOM (🔍) +/-**

Press these buttons on the front panel of the DVR or on the remote control to zoom the camera in or out. Alternatively use the mouse to select the zoom icons.

Function	DVR Front Panel and Remote Control Operations	Mouse Operation	Descriptions
Focus	**+/-** **ENTER**		• Use the **+/-** buttons to focus far/near • Press the **ENTER** button to auto focus
Iris	**+/-**		• Use the **+/-** buttons to increase/ decrease the Iris • The **Iris +** button is used to access the OSD control of Wirepath™ Surveillance cameras and to confirm (enter) commands
Auto Pan (3)	**+/-** **ENTER** **✱** **#**		Auto pan speed is shown in parenthesis • Use the **+/-** buttons to increase/ decrease speed • Press **Enter** start/stop Auto Pan • Press (**✱**) set start position • Press (**#**) set end position
SEQ (5 sec.)	**+/-, NUMBER** **ENTER**		SEQ dwell time is shown in parenthesis • If SEQ mode is on, the camera will go to preset position 0-9 (or 1-10) sequentially. • Use the +/- and the Number buttons to change dwell time • Press the **ENTER** button to start/stop SEQ mode • An asterisk (**✱**) will be shown if SEQ mode is on
Preset (1)	**+/-, NUMBER** **ENTER**		Preset location is shown in parenthesis • Use the **+/-** and the Number buttons to change Preset location • Set Preset location
Pan Speed (3)	**+/-**		Manual pan speed is shown in parenthesis • Use the **+/-** buttons to increase/ decrease speed

7.1 OSD CONTROL FOR WIREPATH™ SURVEILLANCE CAMERAS

Wirepath™ Surveillance 500 and 700 series analog cameras offer remote control of thier OSD (On Screen Display) menu. This is achieved through the PTZ functions of the DVR. The cameras must be connected to the RS485 terminals on the DVR and properly configured according to the camera manual. The DVR must also be properly configured. Please refer to **Section 3.2 Optional Connections** for the connections, **Section 6.1 Pre-Camera Setup** to set the PTZ ID of each PTZ camera, and **Section 6.9 RS-232/422/485 Setup** to setup the RS485 control port.

© 2012 Wirepath Surveillance

To operate the OSD, use the mouse to select the **PTZ Control** icon to enter PTZ control mode if the focus camera is a Wirepath Surveillance camera that supports this feature. The asterisk (✻) will change to inverse color to indicate that the camera is now in PTZ control mode and the **PTZ Control Bar** will be displayed:

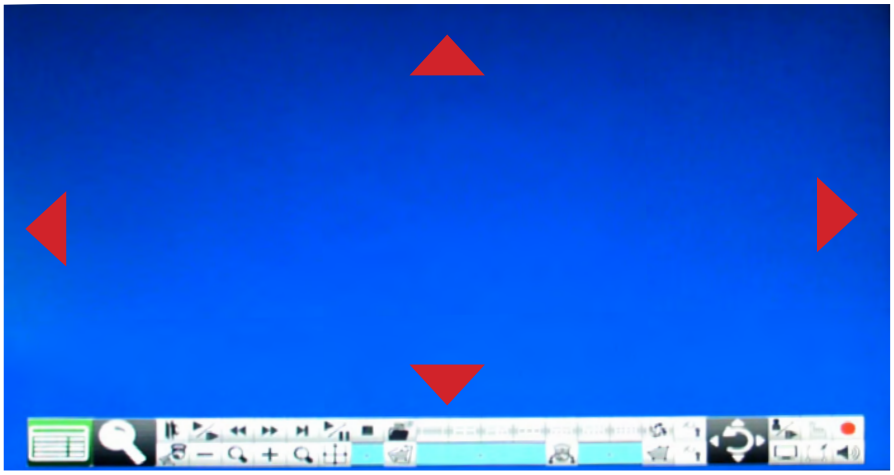
- **PTZ**
  Press this button to **Enter** and **Exit** PTZ control mode. The asterisk (✻) preceding the camera title in the video window will change back to normal color.

- **NEXT**
  Press this button for the **Next** function specific operation. The functions specific operations include **Focus, Iris, Auto PAN, SEQ, Preset**, and **Pan Speed**. The active function specific operation will be shown on the lower right corner of the screen. The miscellaneous function specific operations are described in the following table.

- **IRIS (🔍) +/-**
  Change the **Mode** of the **Zoom function** to **Iris** control. Alternatively use the mouse to select the Zoom (🔍) icon. Press the "**+**" button next to the Iris icon to display the camera's OSD menu. This same button is also used as an **ENTER** key to confirm changes to the OSD.

- **▲▼**
  Press these buttons on the front panel of the DVR or on the remote control to move up or down in the OSD menu. Alternatively left-click the mouse in the top of the video window to move up in the OSD menu, or left-click the mouse in the bottom of the video window to move down in the OSD menu.

- **◄►**
  Press these buttons on the front panel of the DVR or on the remote control to enter or exit items or to change settings in the OSD menu. Alternatively left-click the mouse in the left side of the video window to move exit an item in the OSD menu, or left-click the mouse in the right side of the video window to enter an item in the OSD menu.



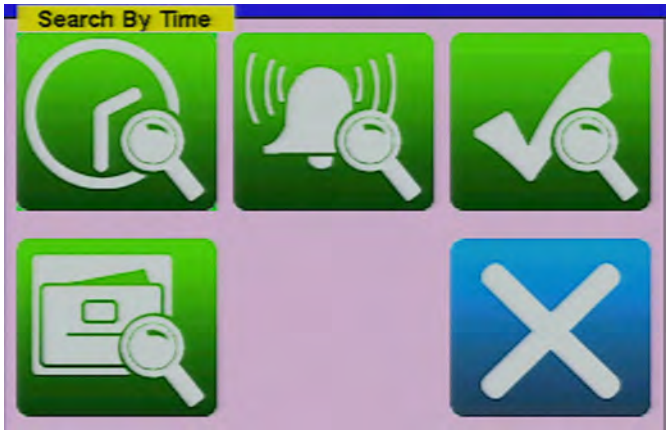
8. SEARCH/PLAYBACK/ARCHIVE

This menu is available to Administrators and Supervisors only.

There are four ways to search the recorded video and audio for playback:

- Search by time
- Search by event
- Smart Search
- Search archived files

Use the **Search** button on the front panel of the DVR or on the remote control to activate the **Search Menu**. Alternatively use the mouse to select the **Search Icon** from the **Control Bar**.



To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ENTER**
  Press the **ENTER** button on the front panel of the DVR or on the remote control to enter the corresponding **Search** menu. Alternatively use the mouse to select the corresponding **Search** menu icon.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the video display. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." Another method to escape is to use the mouse to "right-click," and exit the menu.

© 2012 Wirepath Surveillance

8.1 SEARCH BY TIME

The **Search By Time** feature allows the user to search for recorded video and audio based on time.

Tip: When the screen is opened the oldest record time is displayed at the bottom labeled as Recorded From

To navigate and operate this menu:

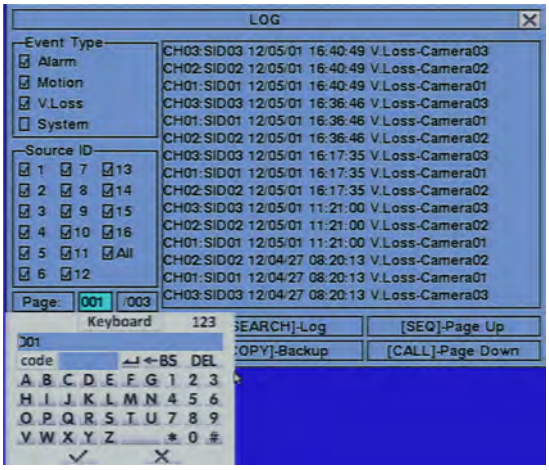
- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **Play (►/II)**
  Press the **PLAY** button on the front panel of the DVR or on the remote control to begin playback of the recorded video and audio using the defined search time and video type. Alternatively use the mouse to select the **PLAY** button. If there is not a camera currently in playback mode then all of the cameras in the current split window will begin playback. See **Section 8.5** for more details.
- **Copy ( )**
  Select the **COPY** button from the front panel of the DVR or on the remote control to backup **(copy)** the selected type of recorded video (beginning from the **Search Time**) to the connected backup device. The **Backup** menu (described in the **Archive** portion of **Section 8.6**) will be displayed. Alternatively use the mouse to select the **COPY** button.

The following is a brief description for each item in the sub menu and its specific operations:

- **SEARCH TIME**
  Select the **Year**, **Month**, **Date**, **Hour**, **Minute** for the recorded video and audio. Playback (or backup) will begin from the time entered in this menu. Use the **+/-** buttons on the front panel of the DVR or on the remote control to modify each item. Alternatively use the mouse to enter the **Search Time**.
- **VIDEO/AUDIO**
  Select the types of recorded video to search: **Alarm, Motion, Video Loss**, **Normal**. Press **ENTER** or **+/-** buttons on the front panel of the DVR or on the remote control to check or uncheck the corresponding video type. Alternatively use the mouse to check the appropriate video type(s).

8.2 SEARCH BY EVENT / LOG DISPLAY

The **Search By Event** feature allows the user to search for recorded video and audio based on the type of event recorded by the DVR.



The DVR will store up to 6000 of the most recent event logs. There are four different types of event logs: **Alarm**, **Motion**, **Video Loss**, and **System**.

Tip: You can jump to a log page quickly by selecting the page box with the mouse and typing in the desired page number. This is useful when you need to see the last page of recordings.

To navigate and operate this menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **ENTER**
  Press the **ENTER** button on the front panel of the DVR or on the remote control to select the highlighted log. Alternatively use the mouse to select the corresponding **Search** menu icon.
- **MODE**
  Press the **Mode** button to refresh the log display. If there are new event logs since the screen was displayed, the log list will be updated accordingly. Alternatively use the mouse to select the **Refresh** option.
- **SEARCH**
  Press the **Search** button to **Log** (export) the event log to a backup device. Alternatively use the mouse to select the **Log** option.
- **SEQ**
  Use the **SEQ** button on the front panel of the DVR or on the remote control to scroll the Event Log **Page Up**. Alternatively use the mouse to select the **Page Up** option.
- **CALL**
  Use the **CALL** button on the front panel of the DVR or on the remote control to scroll the Event Log **Page Down**. Alternatively use the mouse to select the **Page Down** option.
- **Numeric**
  Press the numeric buttons on the front panel of the DVR or on the remote control followed by the **ENTER** button to select the display page of the event logs. Alternatively use the mouse to click the **Page Number** box.
- **Play (►/II)**
  Press the **PLAY** button on the front panel of the DVR or on the remote control to begin playback of the recorded video and audio using the defined search time and video type. Alternatively use the mouse to select the **PLAY** button. If there is not a camera currently in playback mode then all of the cameras in the current split window will begin playback. See **Section 8.5** for more details.
- **Copy ( )**
  Select the **COPY** button from the front panel of the DVR or on the remote control to backup **(copy)**

© 2012 Wirepath Surveillance

the selected type of recorded video (beginning from the **Search Time**) to the connected backup device. The **Backup** menu (described in the **Archive** portion of **Section 8.6**) will be displayed. Alternatively use the mouse to select the **COPY** button.

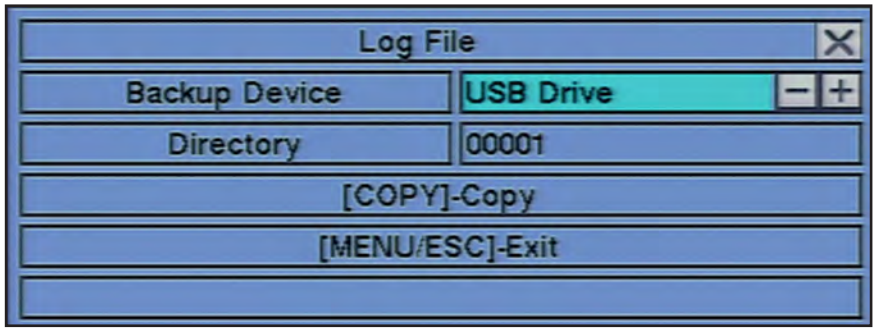
The following is a brief description for each item in the sub menu and its specific operations:

- **EVENT TYPE**
  Press **ENTER** or **+/-** buttons on the front panel of the DVR or on the remote control to check or uncheck the event type for the log list. Event type options include; **Alarm, Motion, Video Loss**, and **System**. The event type **System** includes all system-related events that do not trigger recording such as power on/off and Login/Logout. Alternatively use the mouse to enable or disable the appropriate event types.

- **SOURCE ID**
  Press **ENTER** or **+/-** buttons on the front panel of the DVR or on the remote control to check or uncheck the **Source ID** to be searched. Check or uncheck **ALL** for faster operation. Alternatively use the mouse to check or uncheck the **Source ID(s)**. This feature helps to filter the events shown in the log list. For the Alarm event type, the DVR will search based on the Alarm Input number. **For Motion and Video Loss event types, the DVR will search based on the camera number.**

- **LOG LIST**
  The **Log List** is the list of events according to the search parameters entered (Event Type and Source ID selected). Once the list is displayed, the user may:

  1. Press the **ENTER** button on the front panel of the DVR or on the remote control to select or deselect an event in the log list. Multiple events can be selected in this manner. Alternatively use the mouse to select or deselect events.
  2. Press **Play** (►/II, ►►) button on the front panel of the DVR or on the remote control to playback all the selected events. Alternatively use the mouse to select the **Play** button.
  3. Press **Copy** ( ) button on the front panel of the DVR or on the remote control to backup (copy) all of the selected recorded video and audio events to the connected backup device. Alternatively use the mouse to select the **Copy** button. The **Backup** menu (described in the Archive portion of **Section 8.6**) will be displayed.

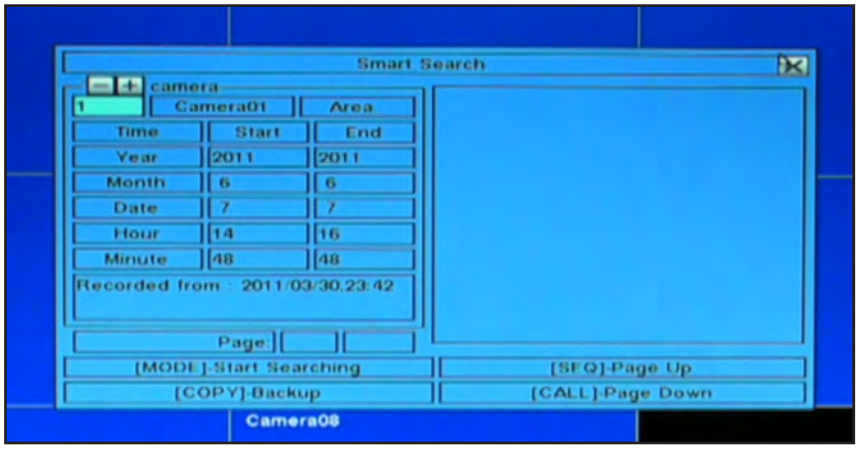


Press the **+/-** buttons on the front panel of the DVR or on the remote control to select the backup device and enter the directory name to store the backup. Press the **Copy** button on the front panel of the DVR or on the remote control to copy the recorded video and audio to the selected backup device. Alternatively use the mouse to select the device and then the **Copy** button.

8.3 SMART SEARCH

The **Smart Search** feature allows the user to search for motion in a specific area of a video (camera) window. This is helpful to narrow down the search results if only a portion of the video window contains the event in question. For example, if a scene in an office includes a safe and the manager wants to review who accessed the safe, the area of the video window that contains the safe could be defined as the the only portion of the recorded videos searched for motion.

*Note: the area of a video searched using **Smart Search** must be part of the defined area for **Motion Detection** (see **Section 6.2.2**).*



To navigate and operate this menu:

- **MODE**
  Press the **Mode** button on the front panel of the DVR or on the remote control to begin searching the recorded video and audio based on the selected search **Time, Camera, and Motion Area**. Alternatively use the mouse to set the parameters and begin the search. The search results will be displayed on the right half of the dialog box.

  *Note: To prevent the **Smart Search** feature from overloading the system, a maximum of up to 500 matched files or 200 GB of hard drive storage for each record partition will be searched based on the start time entered.*

- **SEQ**
  Use the **SEQ** button on the front panel of the DVR or on the remote control to scroll the results **Page Up**. Alternatively use the mouse to select the **Page Up** option.

- **CALL**
  Use the **CALL** button on the front panel of the DVR or on the remote control to scroll the results **Page Down**. Alternatively use the mouse to select the **Page Down** option.

- **Numeric**
  Press the numeric buttons on the front panel of the DVR or on the remote control followed by the **ENTER** button to select the display page of the results. Alternatively use the mouse to click the Page Number box.

- **Copy ( )**
  Select the **COPY** button from the front panel of the DVR or on the remote control to backup **(copy)** the selected type of recorded video (beginning from the **Search Time**) to the connected backup device. The **Backup** menu (described in the **Archive** portion of **Section 8.6**) will be displayed. Alternatively use the mouse to select the **COPY** button.

The following is a brief description for each item in this menu and its specific operations:

- **CAMERA ID**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to change the camera ID to be searched for matching files. Altenatively use the mouse to enter the **Camera ID** number.

- **START/END TIME**
  Press **+/-** buttons on the front panel of the DVR or on the remote control to modify the beginning and end of the search time for the recorded video and audio. Enter the appropriate **Year, Month, Date, Hour,** and **Minute**. Alternatively use the mouse to enter these parameters.

- **MATCHED FILE LIST**
  The results of the **Smart Search** will be displayed in the right side of the dialog box. The files are shown from oldest to newest and a page number is shown on the lower-left corner of the dialog box.
  The user may:

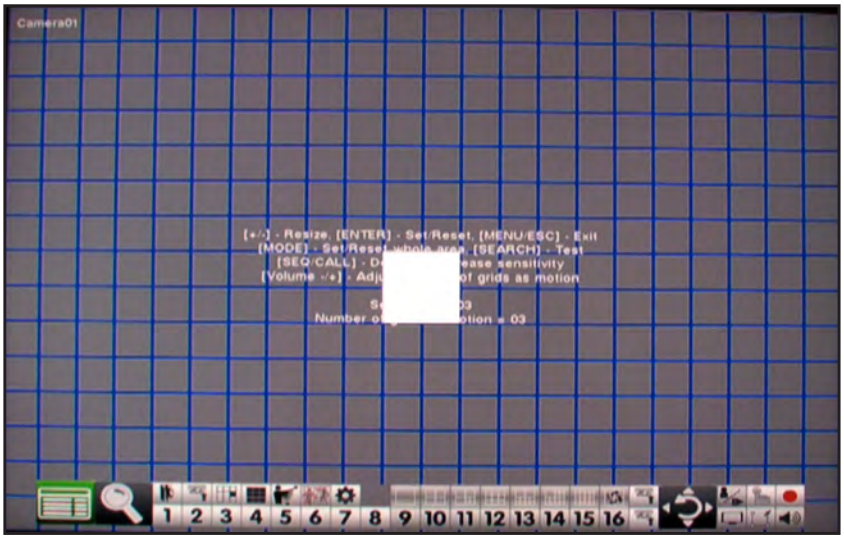
  1. Press the **ENTER** button on the front panel of the DVR or on the remote control to select or deselect a matching event file in the results list. Multiple events can be selected in this manner. Alternatively use the mouse to select or deselect each event.

© 2012 Wirepath Surveillance

2. Press **Play** (►/II, ►►) button on the front panel of the DVR or on the remote control to playback all the selected events. Alternatively use the mouse to select the Play button.
3. Press **Copy** ( ) button on the front panel of the DVR or on the remote control to backup (copy) all of the selected recorded video and audio events to the connected backup device. Alternatively use the mouse to select the **Copy** button. The **Backup** menu (described in the Archive portion of **Section 8.6**) will be displayed.

- **AREA**

  Area defined as the motion area for the video to be searched for matching files. Use the buttons on the front panel of the DVR or the remote control to highlight **Area** and press **ENTER** to display **Motion Area Setting** screen as shown below.



In the **Motion Area Setting** screen use the **white** mask window to define the **Smart Search** area in the same manner as setting up **Motion Detection** (see Section **6.2.2**).

*Note: The area of a video searched using **Smart Search** must be part of the defined area for **Motion Detection** (see Section 6.2.2). Only files with motion covering all of the defined motion area will be displayed as matching results. Therefore, based on the search algorithm, there will be more matching files for smaller defined motion areas.*

The following is a brief description for each item in this menu and its specific operations:

- **▲▼◄►**

  Press these buttons on the front panel of the DVR or remote control to move the **Mask** window (grids **white** in color). Alternatively use the mouse to select and move the **Mask** window (grids **white** in color) by "left clicking" and dragging the mouse over the desired area.

- **+/-**

  Press these buttons on the front panel of the DVR or remote control to resize the **Mask** window (grids **white** in color). Alternatively use the mouse to select and move the **Mask** window (grids **white** in color) by "left clicking" and dragging the mouse over the desired area.

- **ENTER**

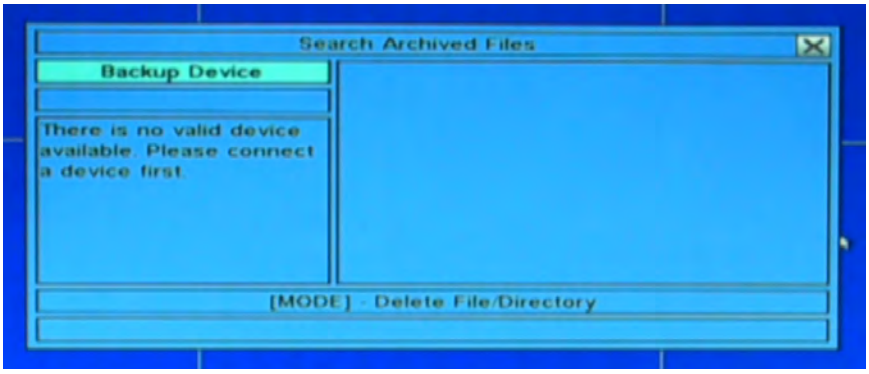
  Press this button on the front panel of the DVR or remote control to **Set/Reset** the area of the **Mask** window (grids **white** in color). Alternatively use the mouse to select the **Mask** icon and adjust the Mask window (grids **white** in color). Once the mask area is set, the mask window will change to yellow.

- **MODE**
  Press this button on the front panel of the DVR or remote control to **Set/Reset** the whole video area. Alternatively use the mouse to select this icon.

- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the **Smart Search** menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." Another method to escape is to use the mouse to "right-click," and exit the sub menu.

8.4 SEARCH ARCHIVED FILES

The **Search Archived Files** feature allows the user to search files on a storage devices such as a USB thumb drive.



The following is a brief description for each item in the sub menu and its specific operations:

- **BACKUP DEVICE**
  Press **ENTER** on the front panel of the DVR or on the remote control to connect to the backup device and display the files on the device. Alternatively use the mouse to connect to the backup device and display the files.

- **ARCHIVED FILE LIST**
  Select the appropriate file from the file list and then press **ENTER** to begin playback. Pressing the **Play** button (►/II) on the front panel of the DVR or on the remote control, or double-clicking the left mouse button will also begin playback. Refer to **Section 8.9 Playback For Archived Files** for the detailed operations. To delete a file, press the **MODE** button on the front panel of the DVR or on the remote control. Alternativly use the mouse to select files, begin playback or delete files.

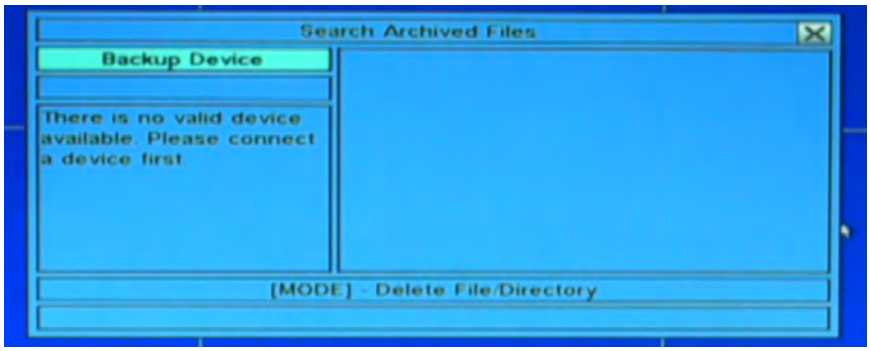
  Note : File name format for camNN-YYYYMMDD-hhmmss.h264 is as follows:

  - **NN** = camera number(01-08)
  - **YYYY** = year
  - **MM** = month
  - **DD** = day
  - **hh** = hour
  - **mm** = minute
  - **ss** = second
  - **.h264** = file type

© 2012 Wirepath Surveillance

8.5 PLAYBACK SEARCH RESULTS

Once playing back video, use the following controls to operate and archivethe video and audio:



To navigate and operate this menu:

- **MODE**
  Use the button on the front of the DVR or the remote control to toggle live and playback mode. Playback mode is indicated by a **red** box around the camera title of the focus camera (the camera being controlled). If in a split window display, the focus window will first switch to playback mode. A second press of the **MODE** button will toggle additional windows to playback mode. Continue to press the **MODE** button to return to live mode (indicated by a **green** box around the camera title of the focus camera). Alternatively use the mouse to select this icon.

  Refer to **Section 4.3 Basic Operations** for instructions on how to change the camera(s) in the playback window(s). After the cameras are set, use the following buttons to control the playback:

- **PLAY/PAUSE (►/II)**
  Press this button on the front panel of the DVR or on the remote control to play or pause the recorded video and audio at 1X speed. If the playback is paused, press this button again to resume playback. Alternatively use the mouse to select this icon. Audio can only be played at forward speed 1X and when the associated cameras is played back in a full window view.

- **STOP (■)**
  Press this button on the front panel of the DVR or on the remote control to stop playback of the recorded video and audio and **return to Live video**.

- **FAST FORWARD (►►/► ON REMOTE CONTROL, ► ON FRONT PANEL)**
  Press this button for fast forward playback. Each time this button is pressed, the forward playback speed will increase in speed from 2X, 4X, 8X, up to 64X, and then back to 2X.

- **SLOW FORWARD BUTTON (SEQ ON REMOTE CONTROL AND FRONT PANEL)**
  Press this button on the front panel of the DVR or on the remote control for slow forward playback. Each time this button is pressed, playback speed will increase in speed from 2X, 4X, 8X, up to 16C, and then back to 2X. Alternatively use the mouse to select the icon sequence using the Fast/Slow button to toggle the playback speed.

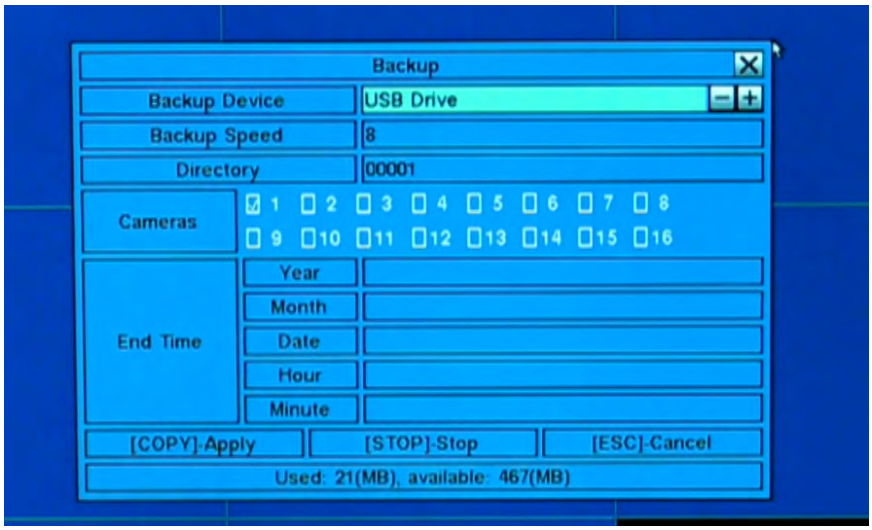
- **FAST REVERSE (◄◄/◄ ON REMOTE CONTROL, ◄ ON FRONT PANEL)**
  Press this button for fast reverse playback. Each time this button is pressed, the reverse playback speed will increase in speed from 2X, 4X, 8X, up to 64X, and then back to 2X.

- **SLOW BACKWARD BUTTON (MODE ON REMOTE CONTROL AND THE FRONT PANEL)**
  Press this button on the front panel of the DVR or on the remote control for slow backward playback. Each time this button is pressed, playback speed will increase in speed from 2X, 4X, 8X, up to 16C, and then back to 2X. Alternatively use the mouse to select the icon sequence using the Fast/Slow button to toggle the playback speed.

- **SINGLE STEP (►I/▼ON REMOTE CONTROL, ▼ ON FRONT PANEL)**
  Press this button to play the recorded video frame by frame.

8.6 ARCHIVE (BACKUP) SEARCH RESULTS

Once playing back video from the **Search** option, use the following controls to archive (backup) the video and audio:



The following is a brief description for the operations in the Backup menu:

- **▲▼◄►**
  Press these buttons on the front panel of the DVR or remote control to select an item. Alternatively use the mouse to select an item.
- **COPY (⎘)**
  Press this button on the front panel of the DVR or on the remote control to start the backup (copy) procedure. A **Copy** icon will be displayed the lower-right corner of the **Status Bar** indicating that the selected video and audio is being copied to the storage device. Alternatively use the mouse to select the **Copy** function.
- **STOP (■)**
  Press this button on the front panel of the DVR or on the remote control to stop copying and return to the previous display. The **Copy** icon will disappear from the **Status Bar**. Alternatively use the mouse to select the stop function.
- **ESC**
  Press the **ESC** button on the front panel of the DVR or remote control to escape from this menu and return to the Smart Search menu. Alternatively use the mouse to exit the sub menu by clicking on the "**X**." Another method to escape is to use the mouse to "right-click," and exit the sub menu.
- **BACKUP DEVICE**
  Press the **+/-** buttons on the front panel of the DVR or on the remote control to select the connected backup device. Alternatively use the mouse to select the backup device.
  Note: Follow the steps described in Section 5.5 Backup Device to connect the backup device before copying.
- **BACKUP SPEED**
  Press the **+/-** buttons on the front panel of the DVR or on the remote control to select a speed from 1-9 with 1 the lowest speed and 9 the highest speed. Alternatively use the mouse to select the backup speed.
- **DIRECTORY**
  Enter the directory to store the backukp files. Please follow the Text Input method described in **Section 4.1** to enter the backup directory. Alternatively use the mouse and the pop-up keyboard to enter the directory.

© 2012 Wirepath Surveillance

- **CAMERAS**
  Press the **ENTER** or **+/-** buttons on the front panel of the DVR or on the remote control to select or deselect each of the cameras to be archived.

- **END TIME**
  Press the **+/-** buttons on the front panel of the DVR or on the remote control to modify the Year, Month, Date, Hour, and Minute for the recorded video and audio for the backup without playback of Search by Time. The files will be backed-up from the start time to the end time when the user press the **COPY** button to start copying.

Note : For each camera and each backup, a batch file will be generated as well as the backup .h264 files. A directory titled "/SelfPlayer" will also be generated if it's not already existing on the backup storage device. The user can use the batch file to self-playback the corresponding backup files on a PC. If the PC has not been installed with the required player components, those components will be installed by running the batch file (For Windows Vista, please run /SelfPlayer/SelfPlayerInstall.exe manually to install the required player components). To copy self-playback files, please copy the batch file and the backup files to the destination directory. Also copy the entire "/SelfPlayer" directory to the root directory of the destination PC.

9. REMOTE ACCESS

The following section discusses DVR remote viewing and control options from PCs and Smart phones.

9.1 PC REMOTE ACCESS

After completing the initial setup, the DVR can be remotely accessed from a PC using a 32bit Internet Explorer web browser. Refer to Section 6 and the appendices (or the **Quick Installation Guide** included in the box) for initial network setup instructions.

To log onto the DVR, launch Internet Explorer and enter the IP address of the DVR in the Location/Address field of the web browser. The DVR's address will look similar to this:

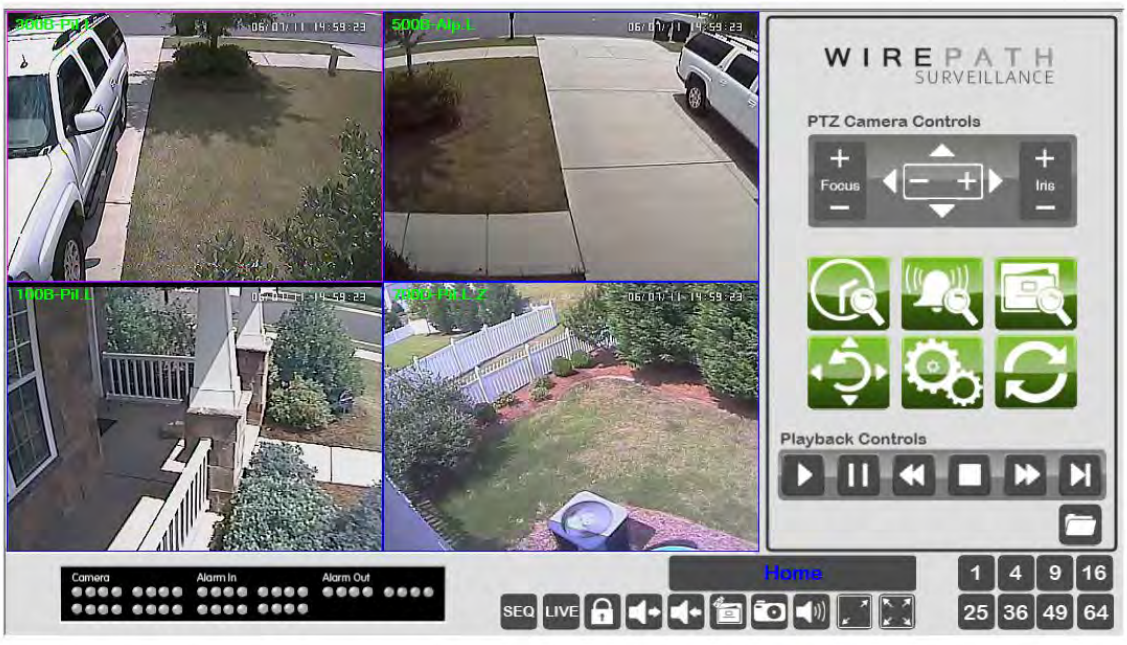
http://AAA.AAA.AAA.AAA:BB/ie.htm

- AAA.AAA.AAA.AAA should be replaced with the IP address of the DVR
- If set to a port number other than the default 80, BB should be the HTTP port entered into the DVR and it must match port forwarding set up in the router
- /ie.htm is the extension for the DVR and must be included at the end of the DVR

Alternatively use the DDNS domain name address if this feature has been enabled and properly setup.

Note: Up to 6 users can log into this DVR simultaneously.

9.2 PC REMOTE DISPLAY AND OPERATIONS



Video images can be displayed in several types of split-window screens including 1/4/9-Window options for a single DVR and 16/25/36/49/64 options if connected to multiple DVRs.

- The focus window is the window surrounded by a **purple** frame border.
- The "**.L**" following the camera title denotes Live video display (text is **green**).
- The "**.P**" following the camera title denotes Playback (text is **red**).
- A **white** box will appear around the camera title when motion is detected.
- The **white** text in the top right of each camera window denotes date and time.

*Note: The frame rate is limited by the bandwidth of the network and the pre-record FPS of the camera (**Section 9.3.5**). The picture quality depends on the recording resolution set in the DVR (**Section 9.3.4**) and quality of the camera. See **Section 9.4** for Dual Streaming options.*

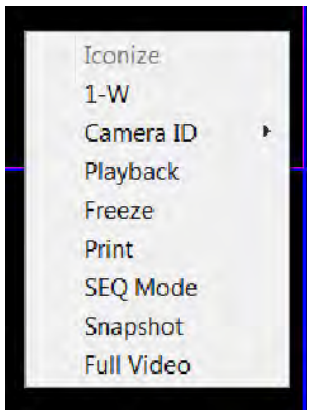
© 2012 Wirepath Surveillance

9.2.1 SPLIT-WINDOW OPTION MENU

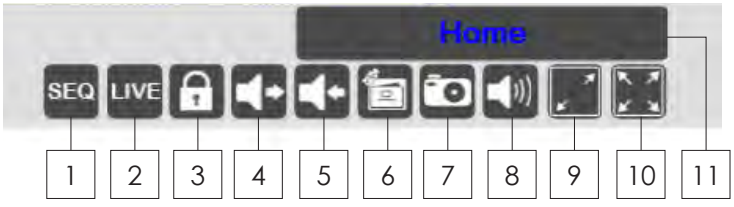
Right click on any split-window to display the **Split-Window Option Menu**.

The following is a brief description for each item in this menu and its specific operations:

- **1-W**
  When in a split-window view, expand the focus window camera to fill the entire video window. When in a single-window view, uncheck this item to return to the previous split-window view.
- **CAMERA ID**
  Change or rearrange the current view by selecting a different camera to appear in each window. If multiple DVRs are connected, cameras from other DVRs can be displayed simultaneously.
- **PLAYBACK**
  Begin **Playback** for the current camera window
- **FREEZE**
  Freeze the Video
- **PRINT**
  Print a picture of the current video window
- **SEQ MODE**
  Enable **Sequence** mode
- **SNAPSHOT**
  Take a **Snapshot** of the video and save it to the local PC
- **FULL VIDEO**
  Expand the current split-window for single window view to fill the entire display and hide all controls



9.2.2 CONTROL PANEL



1. **SEQ MODE**
   Enables the **Sequence Mode** defined in the setup. This feature will automatically cycle through the cameras on the display.
2. **LIVE**
   When in **Playback mode**, use this icon to exit playback and return to Live Video.
3. **FREEZE**
   Freezes live and recorded playback video. Select this icon again to resume **Live** and **Playback** modes.
4. **AUDIO OUT**
   When viewing a camera in the single window view, select the **Audio Out** icon to listen to the associated audio.

5. AUDIO IN
Use the microphone in the PC to send audio to the DVR. An amplifier and speaker must be attached to the Audio Out connection of the DVR to use this function.

6. ARCHIVE MENU
Select this icon to save and backup files.

7. SNAPSHOT
Select this icon to take a **Snapshot** of the screen being viewed. A pop-up window will allow this snapshot to be saved to the local PC.

8. AUDIO BROADCAST
Similar to the **Audio In** function, use this feature to broadcast audio to multiple DVRs simultaneously.

9. FULL SCREEN
Expand the user interface to fill the entire display.

10. FULL VIDEO
Expand the video window to fill the entire display.

11. NAME OF SELECTED DVR
The name of the connected DVR is displayed in this box. Change the connected DVR or connect to multiple DVRs simultaneously to mix and match camera views.

9.2.3 SPLIT-WINDOW PANEL

Use these icons to select the number of cameras viewed on the display.

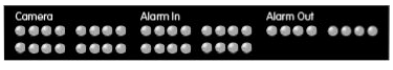
- **4 AND 9 SPLIT WINDOW ICONS**
  Left-click and hold the mouse over the **4** or **9** split-window icon to toggle to additional pages of cameras.

9.2.4 PLAYBACK PANEL

This panel includes **Fast Forward, Fast Reverse, Step Forward, Play, Pause, Stop** and **Copy**.
Fast Forward and Fast Reverse will playback video at **2X, 4X, 8X, 16X**, and **32X** speeds.

- **FORWARD AND REVERSE ICONS**
  Left-click and hold the mouse over the forward or reverse icons to display a pop-up menu to change the speed. Options include **X2, X4, X8, X16, X32** and **X64**.

9.2.5 STATUS PANEL



- **CAMERA STATUS**
  Motion indicators for cameras 1-16 (this DVR supports the first 8)
  - **GREEN** indicates normal status
  - **RED** indicates motion

  Click on any of these icons to select the corresponding camera to be displayed in the focus window

© 2012 Wirepath Surveillance

- **ALARM IN STATUS**
  Status indicators for Alarm Inputs 1-16 (this DVR supports the first 4)
  - **GREEN** indicates normal status
  - **RED** indicates alarm detection

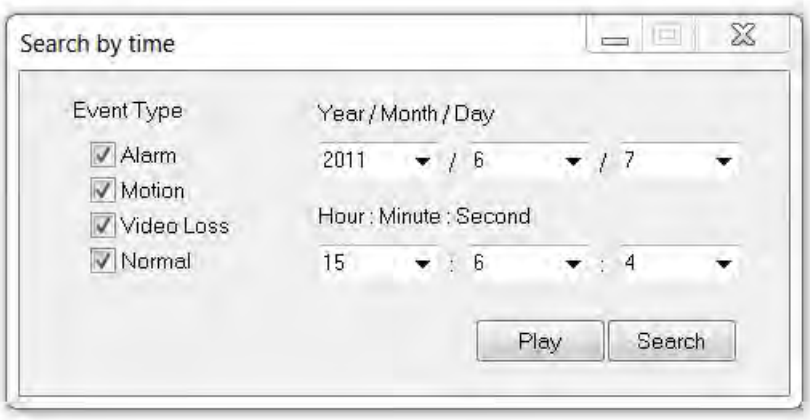
- **ALARM OUT**
  Status indicators for Alarm Outputs 1-8 (this DVR supports the first 2)
  - **GREEN** indicates normal state
  - **RED** indicates triggered state) for the selected DVR.

  As an Administrator, click on any of these icons to control the corresponding Alarm Output.

9.2.6 SEARCH PANEL AND COPY FEATURE

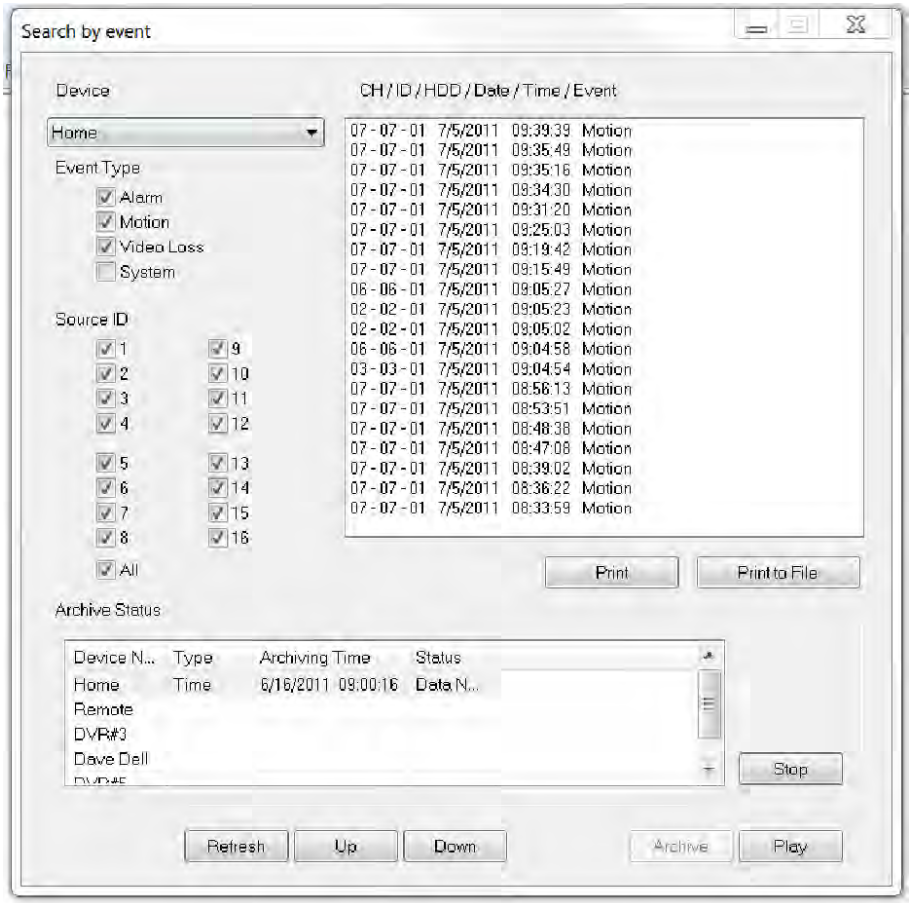
9.2.6. 1 SEARCH BY TIME

To playback video starting at a specific time, select the desired time (**Year, Month, Date, Hour, Minute** and **Second**) and recorded event type (**Alarm, Motion, Video Loss**, and **Normal**) for playback. Click on the **Play** button to begin the playback of all recorded video beginning at that time. Audio will only be played back if in a single window view of a camera that has an associated audio input. Use the **Playback Panel** icons to control the video. To exit playback, select the **LIVE** icon at the bottom of the screen.



9.2.6.2 SEARCH BY EVENT

Use the Search by Event feature to search all recorded event types stored on the DVR's hard drive. Click on the Search by Event icon to display the **Search by Event** dialog box and the event log. Select the Device (DVR) to search. Select the Event Type (**Alarm, Motion, Video Loss** or **System**) and Source ID (camera) to search the event logs. Click on **Refresh** to update the event log and use the Up and Down buttons to scroll to additional events. Click on the desired events to highlight and select them for Playback or to Archive the files to the local PC. Use the **Playback Panel** icons to control the video. To exit playback, select the **LIVE** icon at the bottom of the screen.



The following is a brief description for each item in this menu and its specific operations:

- **DEVICE**
  Select the appropriate DVR to search
- **EVENT TYPE**
  Select the event type(s) to search. System events include Login/Logout, e-mail errors, hard drive failures, etc.
- **SOURCE ID**
  Select the camera ID number(s) to search
- **PRINT**
  Print the event log to a printer
- **PRINT TO FILE**
  Export the event log to a ".txt" file
- **REFRESH**
  Refresh the event log after making changes to the search parameters
- **UP**
  Scroll the event log results up
- **DOWN**
  Scroll the event log results down
- **ARCHIVE**
  Archive the selected event(s) to the local PC
- **PLAY**
  Play the selected event(s)

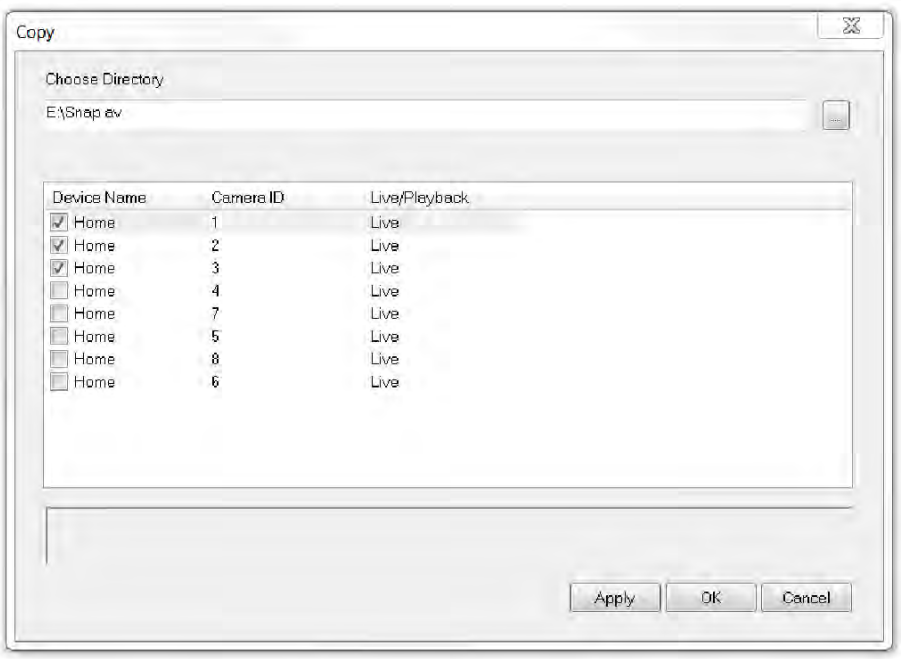
© 2012 Wirepath Surveillance

9.2.6.3 SEARCH BY PC VIDEO

Search the local PC for stored video files. Once the files have been selected, click on **Open**. Use the **Playback Panel** icons to control the video. To exit playback, select the **LIVE** icon at the bottom of the screen.

9.2.6.4 COPY FUNCTION

Use the **Copy** function to record live video from the DVR onto the local PC. The performance of this feature is based on bandwidth capacity of the network and the number and size of the files being copied.



Camera options will populate the **Copy** menu based on what is being viewed in the split window view. Therefore if only one camera is being viewed, only that camera will be displayed in the **Copy** menu as an option to record.

To enable the **Copy** feature, first choose a directory to store the video. Next, depending on the split-window view, check each camera to be recorded to the local PC and select **Apply**. Live video for the selected camera(s) will begin to copy to the chosen directory on the local PC.

To stop the **Copy** feature, uncheck the appropriate cameras and select the **Apply** button.

9.2.7 PTZ CONTROL PANEL

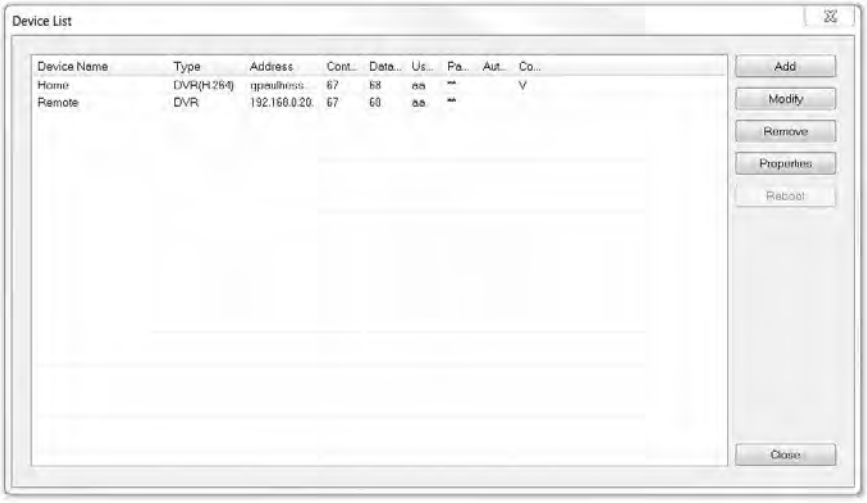
If the camera in the focus window is a Pan/Tilt/Zoom camera, use the buttons on the user interface to operate basic PTZ features.

For more control, display the **PTZ Control Panel** by clicking on the **PTZ Panel** icon. Move the panel by clicking and dragging the panel to the desired location.

To hide the menu, click on the **PTZ Panel** icon again.

9.2.8 DEVICE CONFIG

The Internet Explorer user interface has the ability to connect to multiple DVRs. DVRs must first be added to the **Device List**.



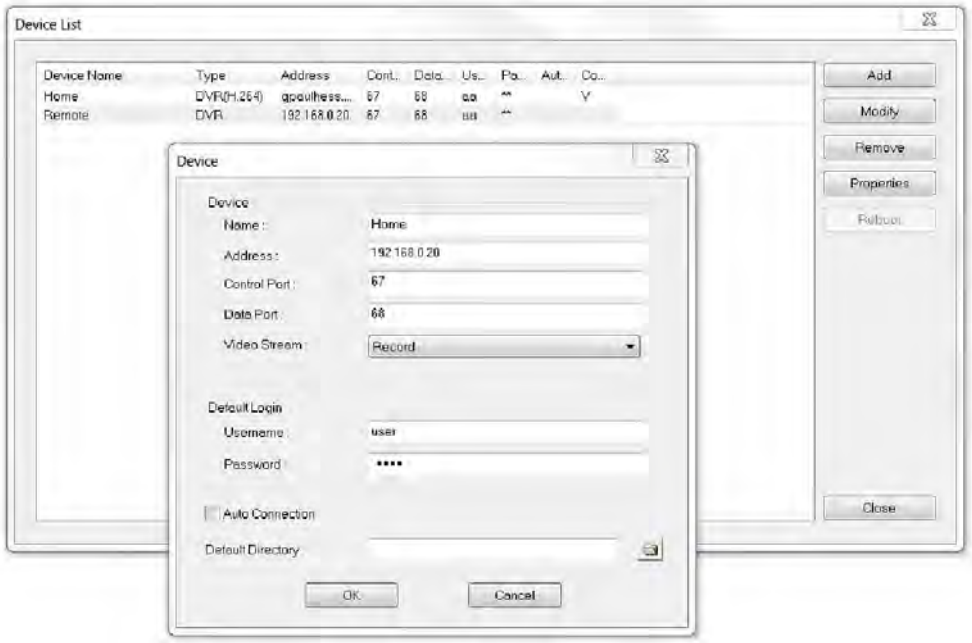
The following is a brief description for each item in this menu and its specific operations:

- **ADD**
  Add DVRs to the Device List
- **MODIFY**
  Modify the settings of DVRs in the Device List. See **Section 9.2.8.1.**
- **REMOVE**
  Remove DVRs from the Device List
- **PROPERTIES**
  Adjust the Properties of DVRs in the Device List. See **Section 9.3**.
- **REBOOT**
  Reboot a DVR in the Device List.

© 2012 Wirepath Surveillance

9.2.8.1 MODIFY

DVRs in the Device List may be modified using this menu.



The following is a brief description for each item in this menu and its specific operations:

- **NAME**
  Enter a meaningful name for the DVR

- **ADDRESS**
  Enter the IP address or URL domain name for the DVR.

- **CONTROL PORT**
  Set the control port for the (DVR) device. The default value is **67** and is auto-populated in menu.

- **DATA PORT**
  Set the data port for the (DVR) device. The default value is **68** and is auto-populated in menu.

- **VIDEO STREAM**
  Set the Video Stream to **Record** to view live video at the same rate as the recording (main) stream. Or set the Video Stream to **Extra** (for "extra" network stream) for Dual Streaming. Dual Streaming is helpful when viewing a remote DVR over a slow network connection. This allows the DVR to continue to record as the set rate but reduces the resolution to speed the video delivery to remote devices. See **Section 9.4** for Dual Streaming.

- **USER NAME**
  Enter the login user name for the DVR. The login name must match a name already set in the DVR.

- **PASSWORD**
  Enter the corresponding password for the login user name. The password must match the password for the chosen login name already set in the DVR.

- **AUTO CONNECTION**
  If this option is enabled, the Internet Explorer user interface will automatically connect to the corresponding DVR to display status messages on the PC screen even if the particular DVR is not being viewed.

9.2.9 SOFTWARE UPGRADE

On occasion it may be necessary to update the DVR's software to take advantage of new features

- Use the **Software Upgrade** icon to open the Software Upgrade dialog box. The current software version of the connected DVR(s) will be displayed in the **Upgrade Status** field.
- To upgrade a DVR, select the DVR and corresponding upgrade file and then click the **Start** button to begin the software upgrade process. The Upgrade status will be updated according to progress.
- The upgrade process may take several minutes and will require the DVR to reboot to complete the process
- The software upgrade can be done over the internet or from a local network connection. The update may take more than 10 minutes if done over the internet depending on the network speed.

! Note: If updating from a software version below 7.75.53, the following steps must be performed before accessing the DVR from IE.

IE Plugin Interface Upgrade

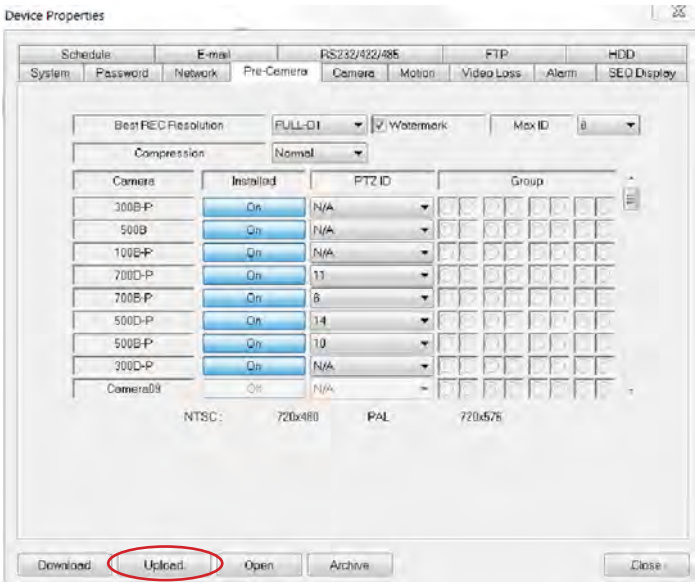
The IE Plugin interface **MUST** be updated to ensure it can access the latest DVR software features.

1. Update the DVR software following the instructions listed above.
2. Download the **Remove_WPS_IE_Plugin** file from the SnapAV website. This file is also located in the software update zip file.
3. **Reboot** each computer that will be used to access or configure the updated DVR.
4. When the computer restarts, **Do Not Open IE**. Run the **Remove_WPS_IE_Plugin** file.
5. Open IE and access the updated Wirepath DVR. Perform Step 2, 3and 4 for all computers that will be used to access the DVR.
6. IE may initially block installation of the DVR Plugin. If so, review the prompt and allow the Plugin to be installed.
7. If prompted, allow installation of the C++ Distributable Package and IEPlugin.cab packages.
8. When Plugin installation is complete, log in to and configure the DVR as usual.

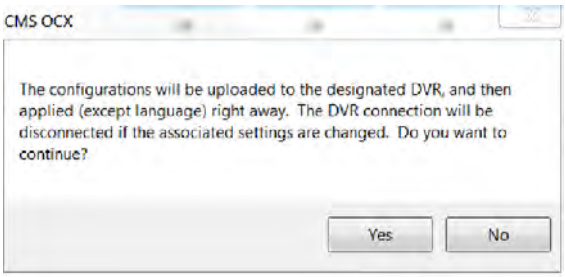
9.3 PC CONFIGURATION OF DEVICE PROPERTIES

Once initially setup, most options of the DVR can be configured remotely. The following sections highlight the options found in the menus. They have been purposely designed to be similar to the setup menus when using the OSD menu from the VGA or BNC output of the DVR. Once changes have been made they must be uploaded to the DVR.

- To save the settings, click on the **Upload** button.



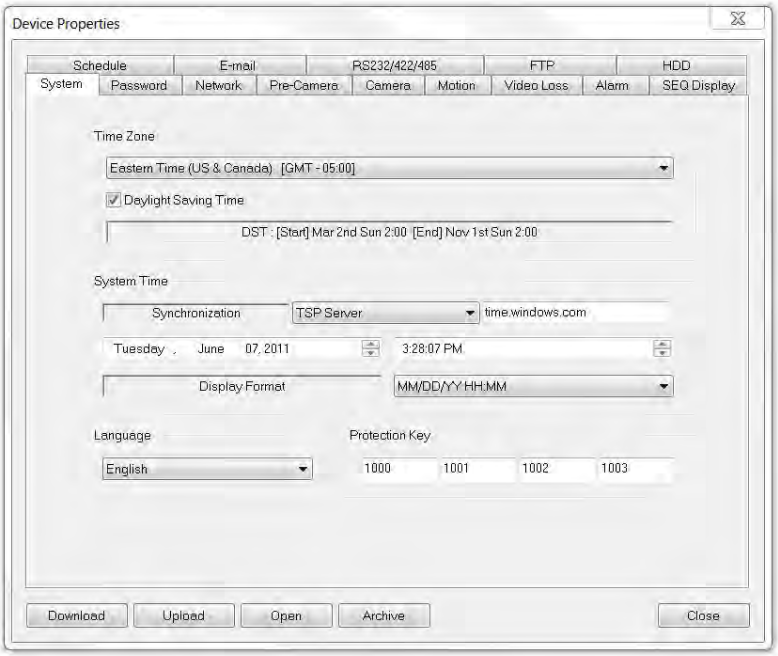
- Select **Yes** to confirm the changes when asked to continue



© 2012 Wirepath Surveillance

9.3.1 SYSTEM

The **System Setup** allows the administrator to set the system time, time zone, time synchronization, language, etc.



The following is a brief description for each item in this menu and its specific operations:

- **TIME ZONE**
  Select the appropriate time zone. The default setting is **Eastern Standard Time**.

- **DAYLIGHT SAVING TIME**
  Enable or disable **DST** by checking this box.

- **SYSTEM TIME**
  - **Synchronization**
    Enable or disable time synchronization with a **TSP Server**. The default setting is disabled.
  - **TSP Server**
    If Time Synchronization is enabled, select a Time Synchronization Protocol (TSP) server. The DVR will synchronize with the specified TSP server.
  - **Date**
    System date
  - **Time**
    System time
  - **Display Format**
    Select the format used to display the system time in the camera windows

- **LANGUAGE**
  System language

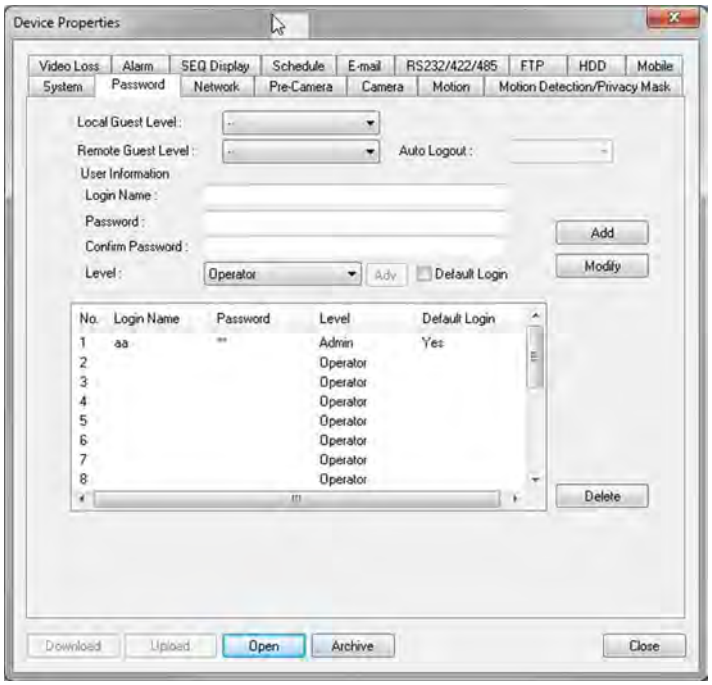
  Note: If the selected language is changed, reboot the system for the newly selected language to take effect.

- **PROTECTION KEY**
  The **Protection Key** is used for secure remote access of the system.

  Note: The Protection Key will be used by some software for authentication when a remote computer wants to connect with the system through the Ethernet interface, either LAN or internet. The same protection key must be entered to install the remote software if it is to be used to access the DVR.

9.3.2 PASSWORD

The **Password Setup** allows the administrator to add new users, delete existing users, and/or modify the user names, password, and levels of access



The DVR allows up to 18 user accounts. There are three default user levels in the system:

- **OPERATOR**
  The lowest level, an Operator can only view live video and audio.

- **SUPERVISOR**
  In addition to live video viewing, a Supervisor can review playback video and audio and has permission to archive files.

- **ADMINISTRATOR**
  The highest level is Administrator and has access to all options.

- **USERNAME**
  In addition to the three default levels, an administrator can also set Customized levels of access for each user as described in the following paragraphs.

  The factory preset Administrator level login

The following is a brief description for each item in this menu and its specific operations:

WARNING – The following 2 features could allow unwarranted access to the DVR. Caution is strongly advised when enabling these features.

Important Note: The following 2 features were added in software v7.77.53 and were listed as Guest Level in previous versions. When the DVR is updated, the setting previously set in Guest Level will show as Remote Guest Level. Verify that it is set to the desired level.

- **Local Guest Level**

Allows or restricts access to the DVR by Guests accessing the DVR through Local interfaces (DVR GUI via front panel buttons, IR remote control or home automation Ethernet control) without a dedicated Login. The option selected determines the level of access a Guest will have.

© 2012 Wirepath Surveillance

"-" (Default) - No Guest Access Allowed (Does not prevent access by User with login credentials)

Administrator - Provides full access to the DVR allowing for viewing of all cameras and modification to all settings. Use this setting with caution.

Supervisor - Provides access to view and control all cameras, Search, Archive and modify basic settings.

Operator - Provides access to view and control all cameras. No access to Search or settings is provided.

UserName - Provides customized access to the features defined in the Advanced Settings for a particular user. See **Adv**: below for more information.

Note: If an RS-232 or IP control system is being used, the Default setting allows the system to control the DVR, but prevents Guest access to DVR features. With this setting users would be required to enter a Login and Password to view cameras, change settings, etc..

• **Remote Guest Level**
Allows or restricts access to the DVR by Guests accessing the DVR from the Internet Explorer plugin interface without a dedicated Login. The option selected determines the level of access a Remote Guest will have.

"-" (Default) - No Guest Access Allowed (Does not prevent access by User with login credentials)

Administrator - Provides full access to the DVR allowing for viewing of all cameras and modification to all settings. Use this setting with caution.

Supervisor - Provides access to view and control all cameras, Search, Archive and modify basic settings.

Operator - Provides access to view and control all cameras. No access to Search or settings is provided.

UserName - Provides access to the features as defined in the Advanced Settings for a particular user. See Adv: below for more information. Note: It is recommended that Remote Guest Level be set to the the default "-" to prevent unwanted access to the DVR from outside sources.

• **AUTO LOGOUT**
If there is no user operation in the time selected from 1 minute to 24 hours, the user will automatically be logged out.

• **LOGIN NAME**
Enter a unique name for each user.

• **PASSWORD AND CONFIRM PASSWORD**
Enter a unique password (numbers only) for each user.

• **LEVEL**
Select the appropriate access level (Administrator, Supervisor, Operator, or Customized) for each user.

• **DEFAULT LOGIN**
Check the **Default Login** box so the corresponding user's login name and password will be the default credentials populated in the **Login/Logout** dialog box so the user doesn't have to enter text to login the system. Default Login will be noted with a "**V**" in the Default Login column.

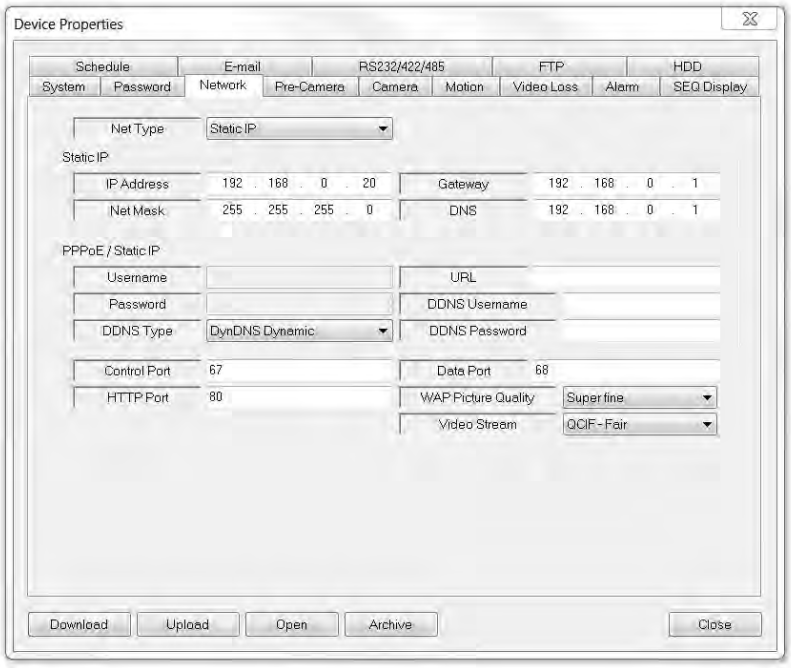
WARNING – This feature could allow unwarranted access to the DVR. Caution is strongly advised when enabling this feature. Setting a default login means that the user name and password will automatically populate the Login/Logout box. This could leave the system vulnerable to unauthorized use. It is recommended to deselect a default login so users are required to provide credentials to access the DVR.

- **ADV.**
  For Customized access per user setup the Advanced User Setup. Within the menu, options are categorized into groups (Monitor, Search, Setup and Others):
  - **Monitor Channel 1-8**
    Select Channels (cameras) the user can monitor.
  - **X2**
    Allow the user to Zoom live and playback video.
  - **PTZ**
    Allow the user to access PTZ features if supported by the camera.
  - **Volume**
    Allow the user to change volume.
  - **Video Adjustment**
    Allow the user to adjust the video
  - **VGA Display**
    Allow the user to change VGA settings.
  - **Playback**
    Allow the user to view playback video and audio.
  - **Backup**
    Allow the user to backup video and audio.
  - **Configuration Backup/Restore**
    Allow the user to backup or restore the DVR configuration.
  - **Setup Camera**
    Allow the user access to Camera Setup.
  - **Setup Alarm**
    Allow the user access to Alarm Setup.
  - **Setup SEQ Display**
    Allow the user access to Sequence Display setup.
  - **Setup Scheduled Record**
    Allow the user access to Scheduled Record setup.
  - **Setup HDD**
    Allow the user access to hard drive setup.
  - **Setup Password**
    Allow the user access to Password Setup.
  - **Setup System**
    Allow the user access to System Setup.
  - **Setup RS-232/422/485**
    Allow the user access to RS485 setup.
  - **Setup Network**
    Allow the user access to Network Setup.
  - **Setup Factory Defaults**
    Allow the user to restore factory defaults to all setup related configurations.
  - **Software Upgrade**
    Allow the user to upgrade the DVR software.
  - **Shutdown**
    Allow the user to shutdown the DVR.

© 2012 Wirepath Surveillance

9.3.3 NETWORK

The Network Setup allows the administrator to setup all Ethernet network related parameters. Consultation with the network administrator may be required to set these parameters correctly.



The following is a brief description for each item in this menu and its specific operations:

• **Net Type**
Select the type of network connection of the DVR to the network (DHCP, Static IP or PPPoE). **DHCP** is enabled by default but a **Static IP** is recommended.

• **IP Address**
Enter an Ethernet IP address for the DVR. This address should be static and not conflict with any other IP address on the LAN.

• **Net Mask**
Enter the Net Mask for the IP address.

• **Gateway**
Enter the Gateway IP address for the system.

• **DNS**
If using DNS, enter the Domain Name Server address for the system. (Same address as Default Gateway)

• **Username**
If PPPoE is used, enter the username for the system.

• **Password**
If PPPoE is used, enter the password for the system.

• **DDNS Type**
Starting with Version 7.75.53 a new selection will appear for WirepathDNS. It is strongly recommended that this option is used to simplify configuration.

Using the WirepathDNS is easy. Select WirepathDNS from the list and enter the client name or other unique string in the URL. When exiting the Network menu, confirm the changes. A DDNS service is setup automatically. See **IE Interface Setup** in **Appendix E** – **WirepathDNS Setup** for details on using WirepathDNS.

• **URL**
Enter the DDNS URL if DDNS is used. – Enter Client Name or System Name to identify the DVR.

• **DDNS Username**
Enter the DDNS username if DDNS is used. – Not used unless an existing DDNS other than WirepathDNS service is configured.

• **DDNS Password**
Enter the DDNS password if DDNS is used. – Not used unless an existing DDNS other than WirepathDNS service is configured.

• **WAP Picture Quality**
WAP (Wireless Application Protocol) is a simple standard for remote devices (such as Smartphones) to access the DVR. See Section 9.6 for more information on WAP.

• **Video Stream**
Video Stream (Dual Streaming) allows the user to choose the resolution and speed the video is delivered to the remote device (see Section 9.4). This is especially helpful for remote devices on slower networks. Reducing resolution sent to these devices will speed up the delivery of the video. To enable Dual Streaming, select one of the four levels of **QCIF** (**Fair** is the lowest quality while **Superfine** is the highest quality). If Dual Streaming is used, the total system recording rate will be reduced. The default value is **Record**, which means that Dual Streaming is not enabled and the output of the DVR to remote devices will match the Best Rec Resolution set in **Pre Camera** (See **Section 9.3.4**).

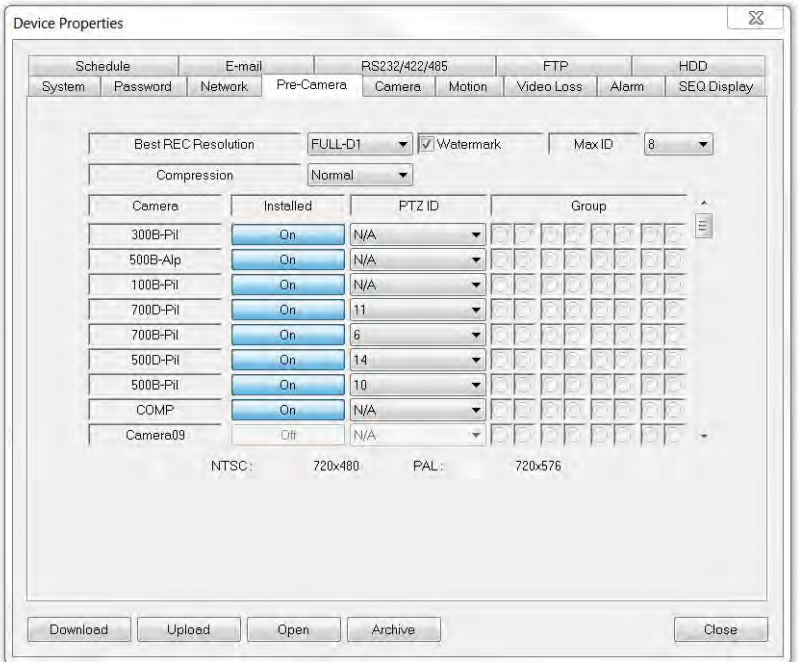
Note: To use Dual Streaming in Internet Explorer, the user must select **Extra Video Stream** option in the **Modify** menu of the **Device List** of the remote PC (See **Section 9.4**).

- **QCIF Fair** – Lowest QCIF Resolution -
- **QCIF Normal** – Medium QCIF Resolution
- **QCIF Fine** – High QCIF Resolution
- **QCIF Super Fine** – Best QCIF Resolution

© 2012 Wirepath Surveillance

9.3.4 PRE CAMERA

Pre-Camera setup allows the administrator to define fundamental attributes for connected cameras.



The following is a brief description for each item in this menu and its specific operations:

- **BEST REC RESOLUTION**
  Select the record resolution for all the cameras connected to the system. This is a global setting. Select **D1** for the highest resolution (720x480), **Half D1** for medium resolution (720x240), or **CIF** for lower resolution (360x240).

  Note: While higher resolution offers more detail, it does require more hard drive storage space and higher network bandwidth capacity for streaming.

- **WATERMARK**
  An invisible, digitally embedded security feature to protect against tampering of recorded content. If a downloaded .h264 clip has been altered, the PC-based playback software will alert the user with a message upon playback. The default setting is enabled.

- **MAX ID**
  Select the maximum number of cameras connected to the DVR.

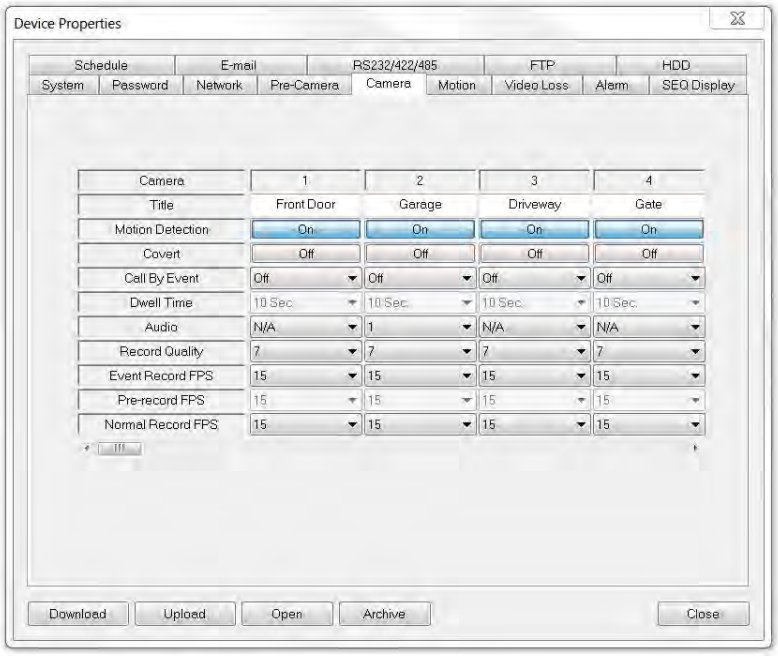
- **COMPRESSION**
  This DVR uses the latest compression format (.h264) for the most efficient use of storage space and streaming flexibility. The Compression setting allows the administrator to further compress streaming video to account for slow or bandwidth-limited networks. Choose **Normal** for normal compression or select **High** to enable the second stream of the Dual Streaming (See **Section 9.4**). The High setting will reduce the resolution of the second stream to one of the four QCIF levels as set in the Video Stream setting in the Network tab (**Section 9.3.3**).

- **INSTALLED**
  Enable or disable cameras in the system. The default setting is enabled.

- **PTZ ID**
  Enter the Pan/Tilt/Zoom ID of corresponding camera if it's a PTZ camera. The PTZ ID should be unique and must be consistent with the setting in the PTZ-capable camera. Please refer to the manual for the camera regarding the proper PTZ ID setting.

9.3.5 CAMERA

The **Camera** setup allows the administrator to define additional attributes for each camera



The following is a brief description for each item in this menu and its specific operations:

- **TITLE**
  Name each camera with a unique identifying name up to eight characters maximum.
- **MOTION DETECTION**
  Enable or disable motion detection for the selected camera. Default setting enables this feature.
  Note: This has no effect on Smart Search functions.
- **COVERT**
  If a camera's covert function is enabled, the video of this camera can only be seen if the user has logged in as an Administrator. The default setting is disabled.
- **CALL BY EVENT**
  If the following events occur for this camera, the main display (VGA or BNC) will switch to the video of this camera for a specified period of time (dwell). Options are: **Off, Motion, Alarm, Both** (Motion & Alarm).
- **DWELL TIME**
  Used in conjunction with Call By Event, **Dwell Time** specifies how long the main display will show the camera on the screen. The **Dwell Time** can be set from 3 to 60 seconds
- **AUDIO**
  Select the corresponding AUDIO IN input for the camera. The audio for the selected AUDIO IN input will be recorded along with the video for this camera. Selections include **N/A** or AUDIO Inputs **1** or **2**. The AUDIO INPUTS can only be assigned to one camera each. The default setting is "N/A".
  Note: The audio will only be heard when in full window view of the corresponding camera and the Audio Out button is enabled.
- **RECORD QUALITY**
  Select the **Record Quality** for each camera. Values range from **1-9**, with **1** the lowest quality and **9** the highest quality.

© 2012 Wirepath Surveillance

- **EVENT RECORD FPS**
  Set the Frames Per Second **Record** rate for each camera when events such as motion or alarm inputs trigger the camera to record. Settings for Post Record time determines how long the DVR will record after the event triggers recording. Please refer to **Section 9.3.6** and **Section 9.3.8** for Post-record time. Select a value from **0 (off) - 30**.

  *Note: The total Event Record FPS should not exceed the system recording capacity of 240 FPS at CIF resolution, 120 FPS at Half-D1 resolution or 60 FPS at Full-D1 resolution as set in Pre-Camera setup in **Section 9.3.4**. Check the system's total Event Record FPS by adding each camera connected to the system's individual FPS.. The DVR will automatically lower the actual record rate if set beyond the system's capabilities once the total maximum FPS is reached.*

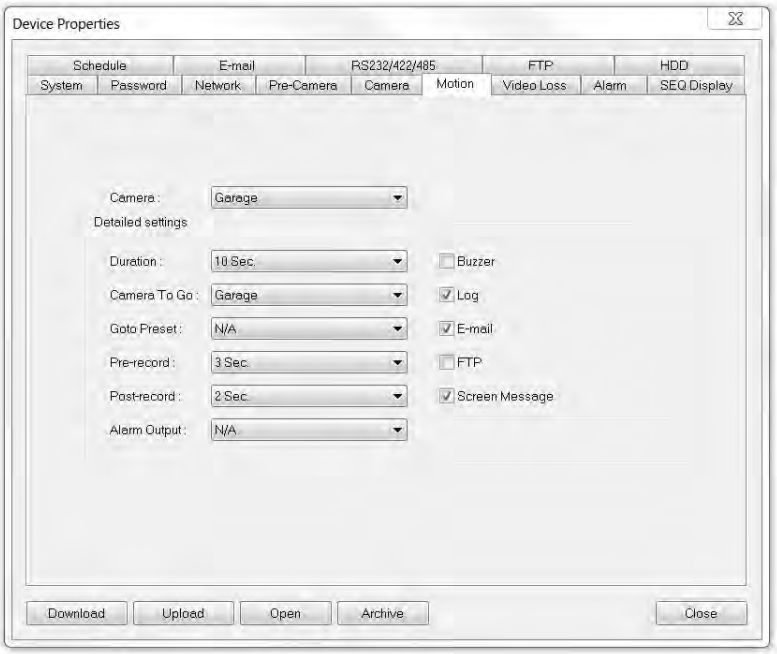
  Recommendation: The higher the FPS setting for a camera, the more fluid the motion on playback. A slower FPS setting could result in "choppy" video during playback, As a reference, live video equals 30 FPS. In surveillance, 15 FPS is recognized as very good quality video while 7 FPS is typically sufficient for most cases.

- **PRE-RECORD FPS**
  The Frames Per Second **Rre-Record** rate for each camera when events such as motion, video loss or alarm inputs trigger the camera to record. For this DVR, the **Pre-Record FPS is always the same as Event Record FPS**. Settings for Pre-Record determine how much time the DVR will record before the event triggers recording. Please refer to Section 9.37, Section 9.3.6, and Section 9.3.8 for Pre-record time.

- **NORMAL RECORD FPS**
  Unless disabled in the schedule (see **Section 9.3.10**), or this setting is set to **0** the DVR is always recording. If there is no event triggering the DVR to record (such as motion or alarm inputs), the recording is referred to as Normal Record. Set the FPS for each camera to be recorded at from a minimum of **0** (off) to a maximum equal to the Event Record setting.

9.3.6 MOTION

Motion Setup allows the administrator to define how the system responds when motion is detected for the camera. Use the OSD from the VGA or BNC main monitor outputs to define the motion detection area (See **Section 6.2.2**)



The following is a brief description for each item in this menu and its specific operations:

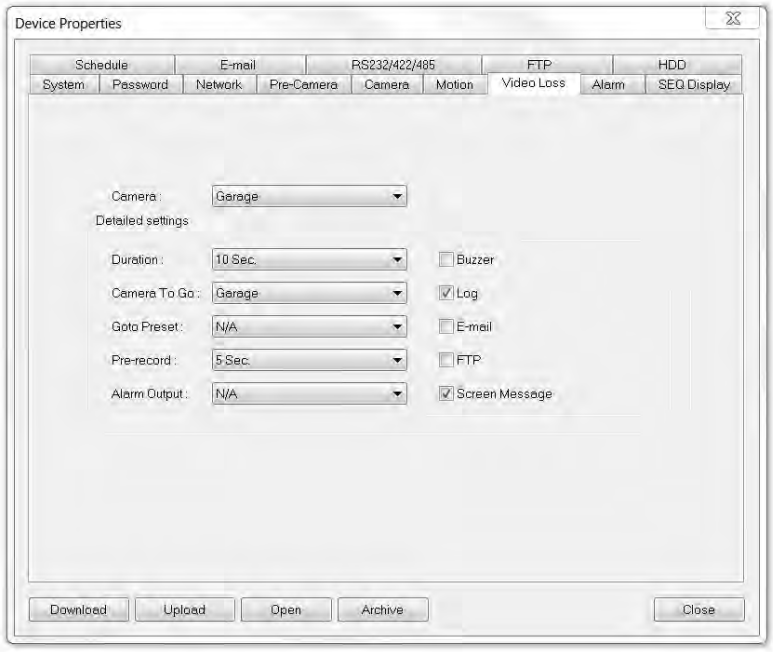
- **CAMERA**
  Select the camera to define motion triggered events.
- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once motion is detected for this camera. The buzzer and Alarm Out relay will reset immediately once motion is no longer detected.
- **CAMERA TO GO**
  The **Camera to Go** setting will specify which PTZ camera will go to a predefined preset when motion is detected for this camera. This feature is used in a system that includes PTZ cameras since the Camera to Go must be a PTZ camera.
- **GOTO PRESET**
  This feature works in conjunction with the Camera to go setting above and defines the preset position the **Camera to Go** PTZ camera will go to when motion is detected for this camera. For more details about preset positions for PTZ cameras, please refer to **Section 7**.
- **PRE-RECORD**
  Define how much time the DVR will record before motion is detected. The Pre Record FPS set in **Section 9.3.5** determines the frame rate of this recording.

  Note: Actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.
- **POST-RECORD**
  Define how much time the DVR will record after motion is detected. The Post Record FPS set in **Section 9.3.5** determines the frame rate of this recording.
- **ALARM OUT**
  Define which Alarm Output will be triggered when motion for this camera is detected. Select **N/A** for none or either of the Alarm Outputs (**1 for NC or 2 for NO**).
- **BUZZER**
  By default the internal buzzer is disabled to sound when motion for this camera is detected.
- **LOG**
  By default, the DVR will log to the Event Log when motion is detected.
- **E-MAIL**
  Send an email message to predefined email address in the event motion detected for this camera. See **Section 9.3.11** for more information on e-mail.
- **FTP**
  This DVR can send the recorded motion detection event for this camera to an FTP server.
- **SCREEN MESSAGE**
  By default, the DVR will display a motion detection message in the System Status Bar (visible from the VGA or BNC main monitor output only) when motion is detected for this camera.

© 2012 Wirepath Surveillance

9.3.7 VIDEO LOSS

Video Loss Setup allows the administrator to define how the system responds when video signal is lost for the camera.



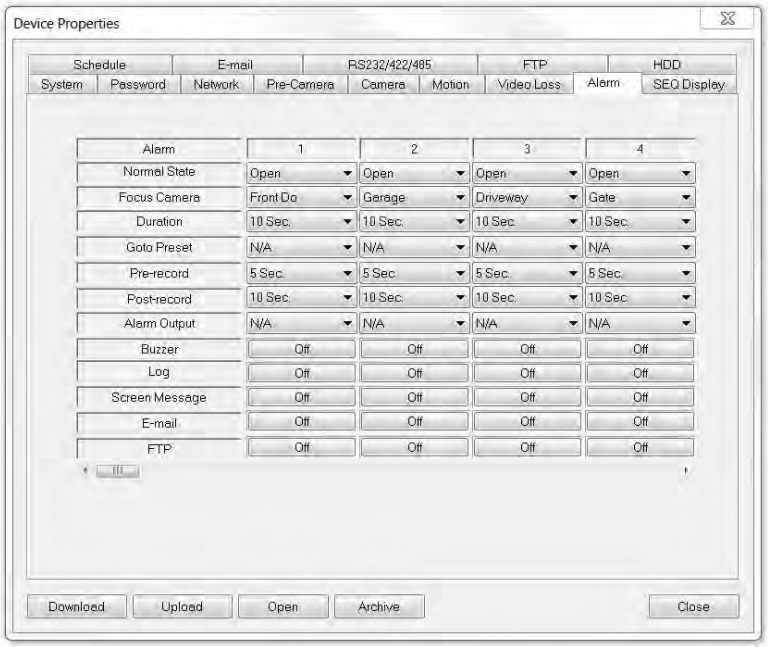
The following is a brief description for each item in this menu and its specific operations:

- **CAMERA**
  Select the camera to define video loss triggered events.
- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once video loss is detected for this camera. The Buzzer and Alarm Out relay will reset immediately once video signal is restored.
- **CAMERA TO GO**
  The Camera to Go setting will specify which PTZ camera will go to a predefined preset when video loss is detected for this camera. This feature is used in a system that includes PTZ cameras since the Camera to Go must be a PTZ camera.
- **GOTO PRESET**
  This feature works in conjunction with the Camera to Go setting above and defines the preset position the "Camera to Go" PTZ camera will go to when video signal is lost for this camera. For more details about preset positions for PTZ cameras, **refer to Section 7**.
- **PRE-RECORD**
  Define how much time the DVR will record before video loss is detected. The Pre Record FPS set in **Section 9.3.5** determines the frame rate of this recording.
  Note: Actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.
- **ALARM OUT**
  Define which Alarm Output will be triggered when video loss for this camera is detected. Select **N/A** for none or either of the Alarm Outputs (**1 for NC or 2 for NO**).
- **BUZZER**
  By default, the internal buzzer is enabled to sound when video loss for the camera is detected.

- **LOG**
  By default, the DVR will log when video loss is detected to the Event Log.
- **E-MAIL**
  This DVR can send an email message to a predefined email address in the event video loss is detected for this camera. The default setting is disabled. See Section **Section 9.3.11** for more information on e-mail.
- **FTP**
  This DVR can send the recorded video loss event for this camera to a FTP server. The default setting is disabled.
- **SCREEN MESSAGE**
  By default, the DVR will display a video loss message in the System Status Bar (visible from the VGA or BNC main monitor output only) when video loss is detected for this camera.

9.3.8 ALARM

The **Alarm Setup** allows the administrator to define the attributes for each alarm input and the actions if it is triggered. Up to four alarm inputs such as motion detectors or door contacts that can be connected to the DVR.



The following is a brief description for each item in this menu and its specific operations:

- **NORMAL STATE**
  Select **N/A, Close** or **Open**. The type of sensor connected to the DVR will determine the setting. For example, motion detectors typically are normally open while door contacts are normally closed. Select **N/A** (Not Available) if the input is not used and the following items will not be adjustable. The default setting is Open.
- **FOCUS CAMERA**
  The camera associated with the alarm input.
- **DURATION**
  Set the length of time the buzzer and the corresponding Alarm Out relay will remain triggered once the alarm input is triggered. The buzzer and Alarm Out relay will reset immediately once motion is no longer detected. If '**-**' for indefinite is selected, the Alarm Reset button on the remote control will have to be pushed to reset the alarm.

© 2012 Wirepath Surveillance

- **GOTO PRESET**
  Define the preset PTZ position the Focus Camera will go to if the alarm input is triggered (the focus camera must be a PTZ camera for this feature). For more details about preset positions for PTZ cameras, refer to **Section 7**.

- **PRE-RECORD**
  Define how much time the DVR will record before the alarm input is triggered. The Pre Record FPS set in **Section 9.3.5** determines the frame rate of this recording

  Note: Actual pre-record time may be shorter than the value set if the total size of the pre-record video exceeds the pre-record video buffer.

- **POST-RECORD**
  Define how much time the DVR will record after the alarm input is triggered. The Post Record FPS set in **Section 9.3.5** determines the frame rate of this recording.

- **ALARM OUT**
  Define which Alarm Output will be triggered when the alarm input is triggered.

- **BUZZER**
  By default, the internal buzzer is enabled to sound when the alarm input is triggered.

- **LOG**
  By default, the DVR will log when the alarm input is triggered to the event Log.

- **SCREEN MESSAGE**
  By default, the DVR will display a message in the System Status Bar (visible from the VGA or BNC main monitor output) when the alarm input is triggered.

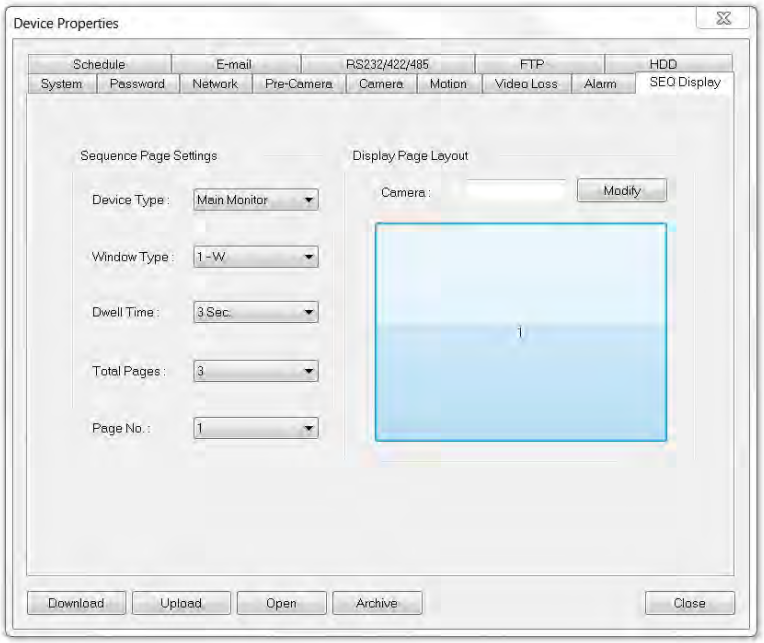
- **E-MAIL**
  Send an email message to a predefined email address in the event the alarm input is triggered. The default setting is disabled. See Section **9.3.11** for more information on e-mail.

- **FTP**
  This DVR can send the recorded video from the associated camera when an alarm input is triggered.

9.3.9 SEQ DISPLAY

The SEQ Display Setup allows the administrator to define the displayed pages when in SEQ Display mode. Options include three display types:

- 1-Window
- 4-Window
- 7-Window



The following is a brief description for each item in this menu and its specific operations:

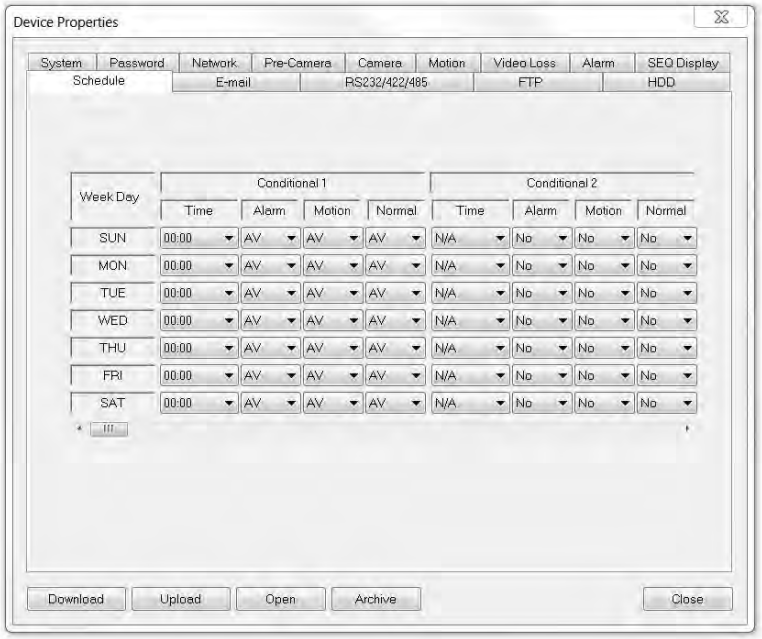
- **DEVICE TYPE**
  This DVR only support Main Monitor
- **WINDOW TYPE**
  Select 1-W for one camera per page, 4-W for four cameras per page or 7-W for seven cameras per page.

- **DWELL TIME**
  Set the dwell time (how long this page will be displayed before transitioning to the next page) from 3 to 60 seconds.
- **TOTAL PAGES**
  Set total pages for this SEQ Display Type.
- **PAGE NO**
  Select the page to be modified.
- **CAMERA**
  Highlight the grid within the displayed page and select the camera number to appear in this grid.

© 2012 Wirepath Surveillance

9.3.10 SCHEDULE

The **Scheduled Record Setup** allows the administrator to define when and how video (and audio) will be recorded. This feature may be useful to increase hard drive storage space by defining what types of events are recorded on specific days of the week. For example if **Normal Recording** (recall that the DVR is capable of always recording video even without event triggers such as motion or alarm) is not necessary, this feature can be disabled on a daily basis. To further define when and how the DVR records, up to 16 time segments (**Conditional 1 – Conditional 16**) are available for each day of the week.



The following is a brief description for each item in this menu and its specific operations:

- **START**
  Set the start time of this time segment (conditional) in increments of 30 minutes in military time format. The end time of this conditional is implicitly set as the start time of next conditional.

  Example: If the following start times are set:
  - Conditional 1 = MON at 9:00
  - Conditional 2 = MON at 18:00
  - Conditional 3 - Conditional 16 = MON as N/A (Not Available)
    --- then ---
  - Conditional 1 = MON 9:00-18:00
  - Conditional 2 = MON 0:00-9:00 **and** 18:00-24:00

- **ALARM**
  Define if Alarm events are recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification.

- **MOTION**
  Define if Motion events are recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification.

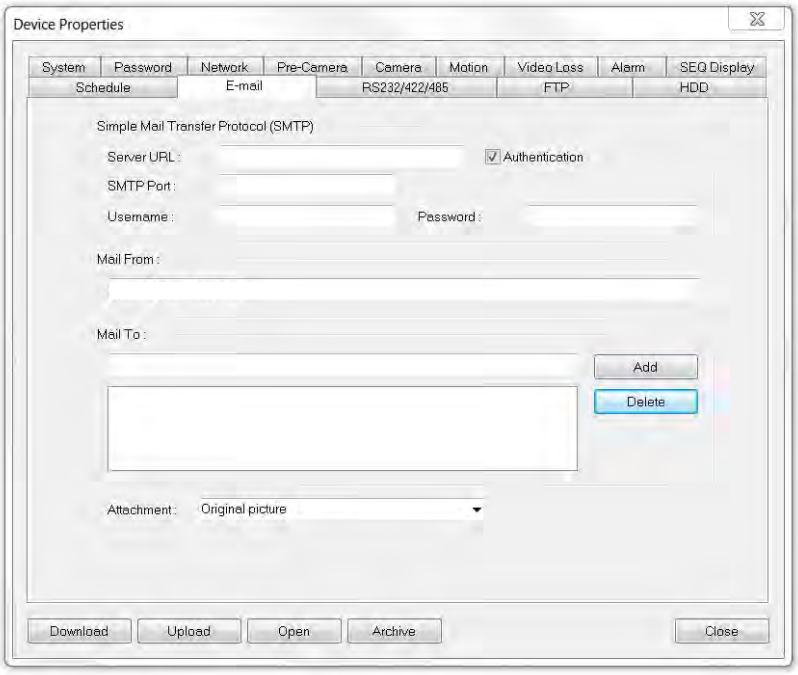
- **NORMAL**
  Define if normal video and audio (non-event based video and audio) is recorded. Options include **V** for Video only, **AV** for Audio and Video, **NO** for No Recording, and **OFF** for recording but no event notification.

  Note: If both Alarm and Motion are set to OFF, then all video and audio recordings will be considered "normal recording" unless there is Video Loss for a particular camera.

- **BUZZER**
  By default, the internal buzzer is enabled to sound when video loss for the camera is detected.

9.3.11 E-MAIL

When an event occurs and e-mail is enabled as a corresponding action, an e-mail will be sent based on the parameters set in this menu. Consultation with the e-mail service provider may be required to set these parameters correctly.



The following is a brief description for each item in this menu and its specific operations:

- **SMTP SERVER**
  Enter the SMTP mail server name.
- **SMTP PORT**
  Enter the SMTP port for e-mail transmission. The default value is 25.
- **AUTHENTICATION**
  Check/uncheck this item depending on whether the SMTP mail server requires authentication.
- **USERNAME**
  Enter the **username** to the e-mail service.
- **PASSWORD**
  Enter the **password** to the e-mail service.

© 2012 Wirepath Surveillance

- **MAIL FROM**
  Enter the e-mail address of the associated e-mail account.

  Note: This setting is specific and must match e-mail client settings used to access an e-mail account or the e-mail feature will not be operable. Do not enter generic text in this field.

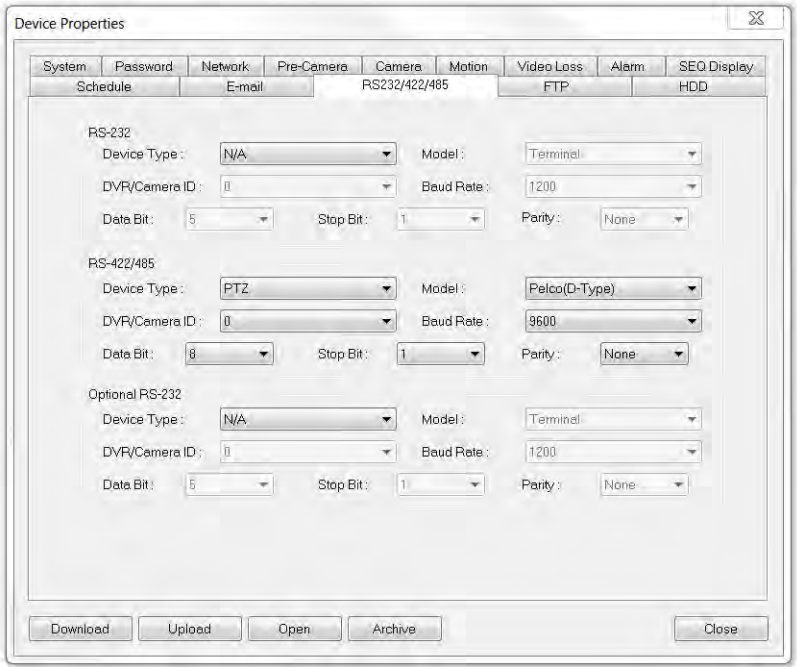
- **MAIL TO #1-5**
  The DVR can send e-mails originated from triggered events to up to five different e-mail addresses. Enter the appropriate e-mail addresses in these fields.

- **ATTACHMENT**
  This feature offers the ability to attach a picture from the corresponding camera to the e-mail being sent. Optional picture sizes for the attachment can be set to **Original** to match the recorded resolution or setto **QCIF** (Quarter CIF is 176 x 144 pixels) to reduce the size of the attachment. Select **N/A** to disable attachments.

  Note: If the DVR's resolution is set to Half D1, picture attachments in the e-mail will appear "squished" since the DVR reduces the horizontal lines of resolution by half (therefore reducing storage space and bandwidth requirements). This only effects e-mails and not noticeable in .h264 live or recorded playback video.

9.3.12 RS485

The RS-232/422/485 Setup allows the administrator to setup the RS-485 control port. Please refer to the manuals for the connected devices such as PTZ cameras to properly set the items in RS-232/422/485 Setup.



The following is a brief description for each item in this menu and its specific operations:

- **DEVICE TYPE**
  When connecting to PTZ devices, select the appropriate device type. Options are **PTZ, Keyboard, PTZ+Keyboard or N/A** (Not Available).

- **MODEL**
  PTZ model (**for PTZ and PTZ+Keyboard**) refers to the type of the connected devices. The PTZ models supported include **Pelco D Protocol Dome, Samsung SCC-641P, Kalatel Cyber Dome, PIH-series, Dynacolor, Bosch AutoDome, Video Trek**, etc. The Keyboard models supported include **Terminal** (EX. VT-100) and **Control Protocol**.

  Note that if the PTZ+Keyboard is selected for Device Type, the Keyboard model is always Control Protocol, and the other settings (Baud Rate, Data Bit, Stop Bit, and Parity) are the same as the PTZ Model selected. In addition, be sure that the Keyboard Control Protocol and the PTZ Protocol won't conflict with each other.

- **BAUD RATE**
  Set the appropriate baud rate to match the devices. The baud rate must be the same for all devices on the RS485 network.

- **DATA BIT**
  Set the appropriate Data Bit.

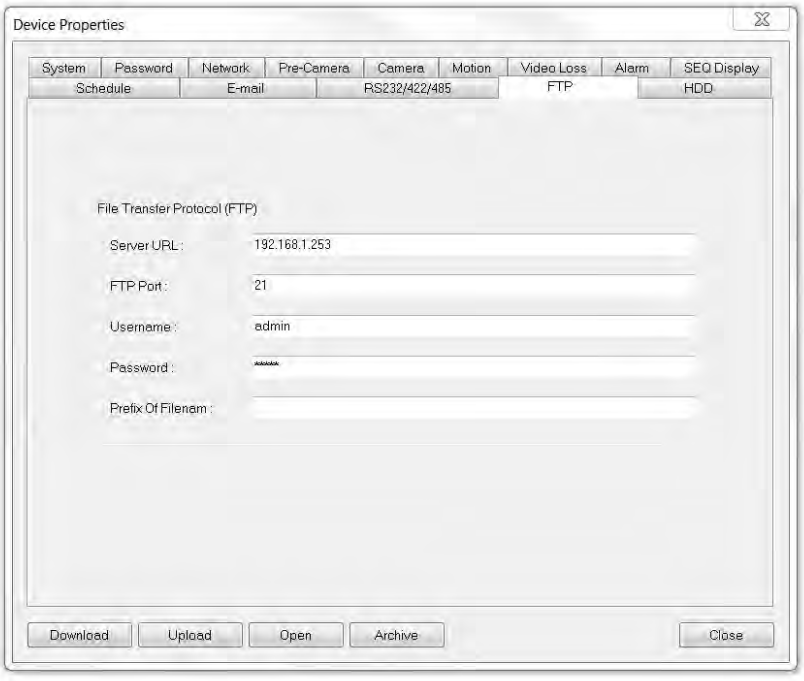
- **STOP BIT**
  Set the appropriate Stop Bit.

- **PARITY**
  Set the parity to **Odd, Even,** or **None**.

- **DVR/CAMERA ID**
  Set the **PTZ ID** for the DVR. It must not conflict with other devices connected to the RS485 network.

9.3.13 FTP

FTP Setup allows the administrator to set FTP-related parameters. When an event occurs and FTP is enabled for the action, the recorded video and audio for that event will be sent to the FTP server based on the parameters set in this menu.



© 2012 Wirepath Surveillance

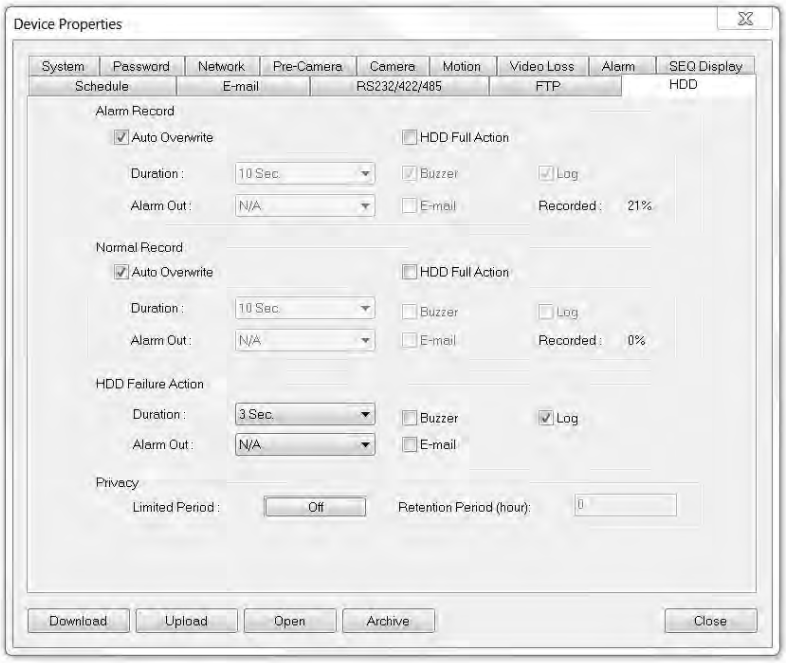
The following is a brief description for each item in this menu and its specific operations:

- **SERVER URL**
  Enter the FTP server web/IP address.
- **FTP PORT**
  Enter the FTP port number. The default value is 21.
- **USERNAME**
  Enter the username for the FTP server.
- **PASSWORD**
  Enter the password for the FTP server.
- **PREFIX OF FILENAME**
  Enter the prefix of the filenames for files sent to the FTP server. If this box is left empty, the filenames will start with "cam" If a prefix such as "Prefix" is entered, the filenames will be "Prefix-cam" For another example, if the prefix is "DVR01", then the filenames will begin with "DVR01-cam."

9.3.14 HDD

Alarm-triggered video and audio is typically more important than non-even normal video and audio recording in surveillance applications. The DVR is designed to allow the hard drive to be partitioned into an alarm partition and a normal partition. Partitions can only be set from the VGA or BNC main display (See **Section 6.6**). Alarm video and audio will be recorded in alarm partition and normal video and audio will be recorded in the normal partition.

HDD Setup in Internet Explorer allows the administrator to define the behavior for Alarm Record and Normal Record partitions if the hard drive becomes full.



The following is a brief description for each item in this menu and its specific operations:

- **HDD FULL ACTION**
  Based on the hard drive status, the DVR can sound the buzzer, log the event and email an alert when the hard drives reaches its maximum capacity.

- **DURATION**
  Set the duration that the Alarm Out relay and the buzzer will remain triggered when the corresponding partition is full. Set the time from 3 seconds to 60 minutes or '-' indefinitely until the Alarm Reset button on the remote control is pressed.
- **ALARM OUT**
  Define which Alarm Output will be triggered when the corresponding partition is full.
- **BUZZER**
  By default, the internal buzzer is enabled to sound when the corresponding hard drive partition is full.
- **LOG**
  By default, the DVR will log when the corresponding hard drive partition is full to the event Log
- **E-MAIL**
  Send an e-mail message to a predefined email address when the corresponding hard drive partition is full.

9.4 DUAL STREAMING

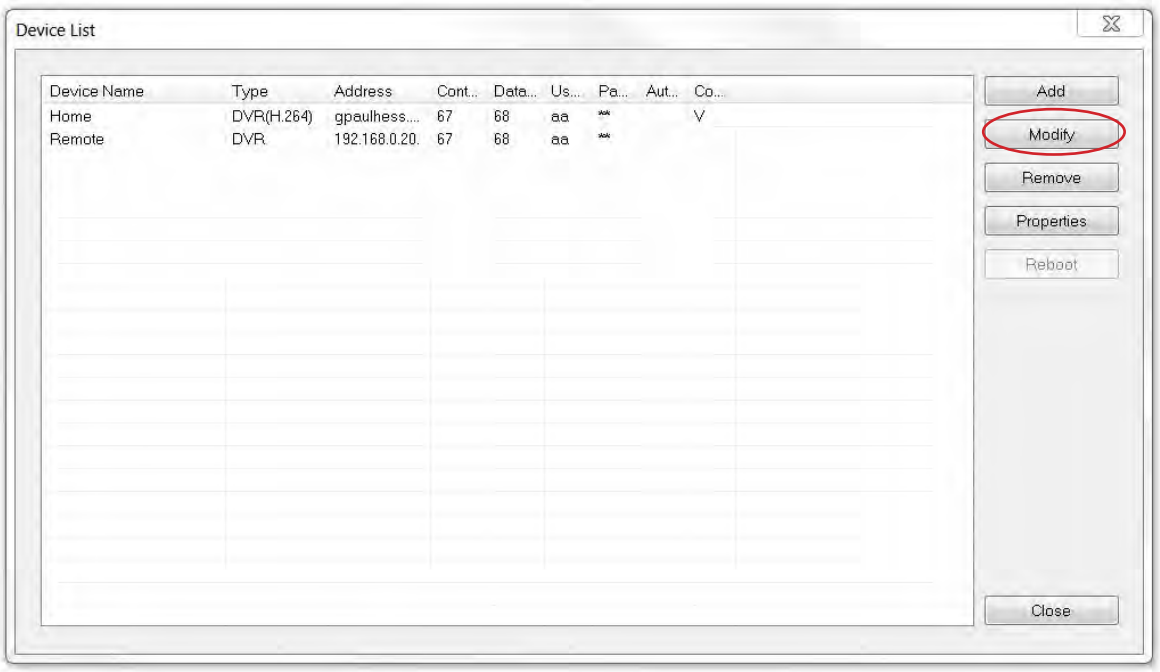
This DVR offers two simultaneous video (and audio) streams to allow the DVR to record at a higher resolution while streaming the video to remote devices at a lower resolution. Dual Streaming can be set two ways. The first option is to set Compression (found in the Pre-Camera tab) to High. The second option is to set Video Stream (found in the Network tab) to one of the four QCIF levels.

Recommendation:Set Compression to Normal and use the Video Stream in the Network tab to enable Dual Streaming.

Internet Explorer allows the user to choose which stream is being viewed, **Record** or **Extra**. Use the **Modify** menu of **Device Config** to change the video stream being displayed in Internet Explorer. The setting should be based on the bandwidth capability of the network.

To access this menu,
select **Device Config**
icon from Internet Explorer.

1. Select the DVR to control and click on **Modify**.

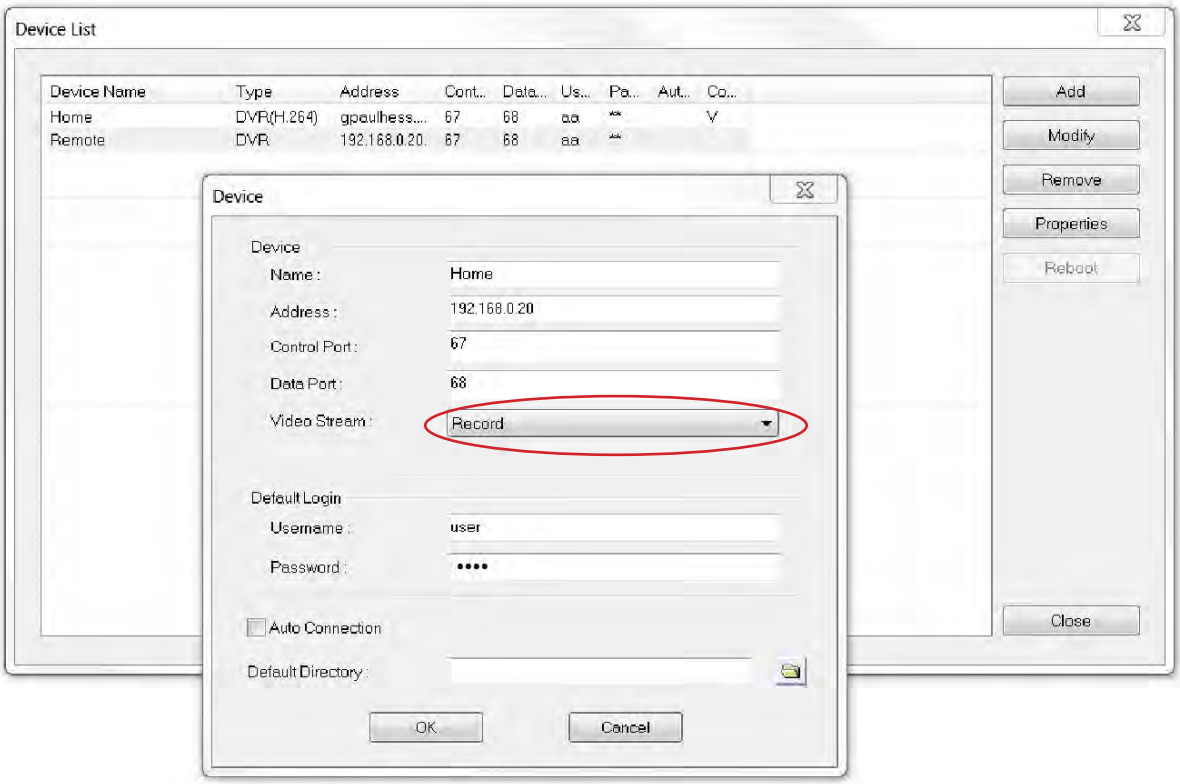


© 2012 Wirepath Surveillance

2. Adjust the **Video Stream** accordingly.

- **RECORD**
  If **Record** is selected, the PC will match the Best REC Resolution setting found in **Pre-Camera** tab. The **Record** setting (with Compression set to Normal, see **Section 9.3.4**) delivers the best video performance but requires the network to offer the necessary bandwidth capacity. See **Section 9.3.4** for more information on the Record setting.

- **EXTRA**
  If **Extra** is selected, the PC will use the extra network stream (Dual Stream) to reduce bandwidth consumption and speed video delivery to the remote PC. In the **Network** tab select one of the four QCIF options listed in Video Stream. See **9.3.3** for more information on the Video Stream setting.



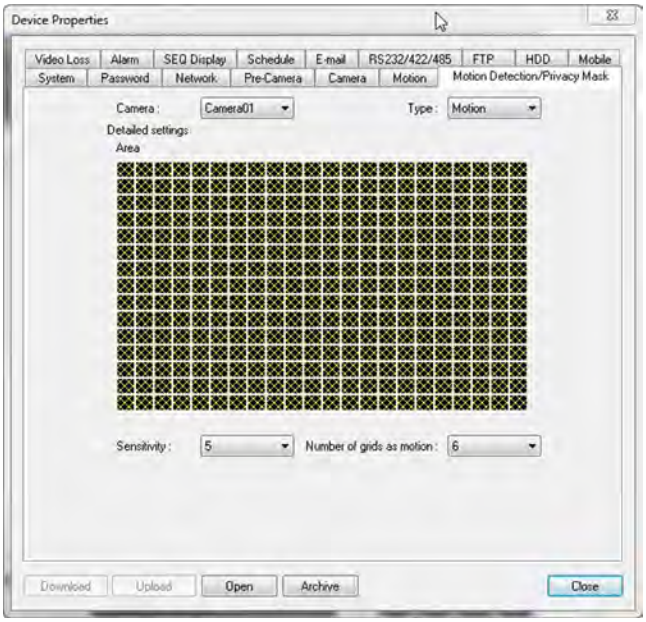
RECOMMENDED SETTINGS:

	Recommended Settings for typical networks		
	Fiber /Cable	**DSL / 3G**	**Smartphone**
Record Setting	D1	D1	CIF
Compression	Normal	Normal	Normal
Record Quality	9	5	1
Video Stream	Record	QCIF Superfine	QCIF Fair
Notes	For the best quality video recording to the DVR and streaming to remote devices on a high speed network	For high quality video recording to the DVR and smooth motion steaming to medium speed networks	For the most efficient use of hard drive space and steaming to devices on a slow network

9.5 MOTION DETECTION / PRIVACY MASK

Note: This feature is only available on DVRs with software versions 7.77.53 or higher. Update the DVR to the latest version available on the SnapAV Website to use this feature.

See **Section 5.6 SOFTWARE UPGRADE** for information on performing a software upgrade.



9.5.1 MOTION DETECTION

Motion detection allows the administrator level users to define how the system responds when motion is detected for the camera.

1. Select the Motion Detection / Privacy Mask tab.
2. Select the desired camera from the Camera dropdown list.
3. Select Motion from the Type dropdown list.
4. When opened, the area will show Yellow patterns over the camera image (Yellow indicates the areas the DVR will detect for motion). Click and Hold the left mouse button and drag over the area(s) where motion detection is not desired.

Tip: Select the entire visible area of the camera to remove motion detection from the camera. After doing so, select the area in which motion detection is desired.

5. Adjust Sensitivity and Number of grids (number of boxes in the picture that must see motion before triggering) to achieve the desired results. Adjust Sensitivity and Number of grids for all lighting conditions during setup for the best results.
6. Select Upload to save the settings.
7. Repeat for all cameras connected to the DVR.

Tips for motion detection setup:
DVRs recognize the change in light to detect motion (this is different than the typical PIR security motion detector that uses multiple beams of infrared light). It is critical to understand possible changes in the scene to reduce false motion detection. Generally it is easier to control the lighting and the scene in indoor environments for accurate motion detection.

However, in exterior locations environmental factors such as shadows due to changes in weather or the position of the sun, leaves blowing in the wind and even animals can falsely trigger motion detection. For highly sensitive environments it may be better to use a 3rd party PIR motion detector connected to the alarm inputs on the DVR. We recommend the use of higher quality cameras (such as our 500 and 700 series) that do not induce noise into the picture in low light conditions that could false trigger the DVR.

9.5.2 Privacy Mask

Privacy Mask allows the administrator level users to define areas of the camera to not be shown in the camera image. There areas will be hidden with black boxes/grids

1. Select the Motion Detection / Privacy Mask tab.
2. Select the desired camera from the Camera dropdown list.
3. Select Privacy Mask from the Type dropdown list.
4. When opened, the area will show the camera image. Click and Hold the left mouse button and drag over the area where privacy is desired. (Yellow indicates the selected Privacy area)
5. Select Upload to save the settings.
6. Repeat for all cameras connected to the DVR.

© 2012 Wirepath Surveillance

9.6 IPHONE REMOTE CONTROL

The following section describes the steps to add the **WPS-DVR** application to an iPhone, iPod or iPad and how to operate the application.

1. INSTALL THE APPLICATION

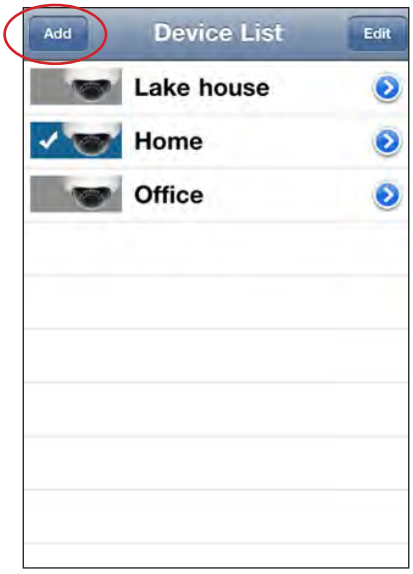
1. Access the iTunes App Store using iTunes or your Apple Device and search for **WPS-DVR**.
2. Install and run **WPS-DVR** on your Apple Device.

WPS-DVR

2. ADD THE DVR IN THE DEVICE LIST

1. Select the **Add** button to add the DVR to the **Device List**.
2. Enter a name for the DVR in **Device Name.**
3. Enter the DVR's IP address or DDNS name in **Address**.
   - If connecting on a local network, enter the IP address (Ex: 192.168.0.101).
   - If using DDNS, enter the registered domain name (such as smithdvr.dyndns.com).

   Note: Do not precede the address with "http://" or add a port number to the end of the address.
4. Enter the **Control Port** and **Data Port** numbers that match the settings of the DVR and the router that the DVR is connected to. By default, these numbers are **67** and **68** respectively.
5. Enter the **User Name** and **Password** for the DVR. By default, these settings are **user** and **1234** respectively.
6. If enabled, **Auto Connect** will establish a connection with the DVR as soon as the application is opened.
7. Select the **OK** button once settings are complete.



Recommendation: Enter two devices per DVR to the Device List. One could be named "Local" and the second "Remote." When the user is connected to the same local network as the DVR and selects "Local," the user will experience faster network speed. When connected to a remote network, the user should select "Remote" to still have access to the DVR.

9.6.1 REMOTE DISPLAY AND OPERATION

After launching **WPS-DVR**, select the DVR in the **Device list** to connect. The application will open to a 4 window split screen by default. Use the **CH** button or double-tap a quadrant in the split screen to view a single camera full screen. Once in full-screen view, a "swipe" feature enables the ability to sequentially scroll through all of the cameras. This feature is also available in landscape mode.

- **DISPLAY OPERATION**

Back	**BACK** - Exits the Main Display and returns to the Device List
Home - Remote	**DVR SELECTION** - Select and connect to other DVRs in the Device List
CH	**CH** - Displays a virtual numeric keypad for 16 cameras. Select any camera to switch to the full-window display for that camera.
	GRID - Select 1, 4, 9 or 16 split-window view of the DVR. The 4 split-window view offers views in groups of four.
	AUDIO - Enable/mute the audio output from the DVR. This option is only available when in full window view of the camera that has audio associated with it in the DVR setup.
	SNAPSHOT - Snapshot of the screen is sent to the Photo Library of the iPhone.
	PTZ FUNCTION - Select the full window view of a camera that offers PTZ function. This option is only available if the DVR is setup to enable PTZ for the associated camera.

- **PTZ OPERATION**

zoom zoom	**ZOOM IN, ZOOM OUT**
pre-set auto pan seq	**GOTO** preset position, Start **Auto Pan**, Start **SEQ**
focus focus iris iris	**Focus** Adjust, **Iris** Open/Close
PAN/TILT	Touch the corresponding portion of the camera window to Pan or Tilt the camera Up, Down, Left or Right

© 2012 Wirepath Surveillance

• SEARCH OPERATION

	Search By Time - Select month-day-year-hour-minute of the video to be viewed and press to begin playback.
	Search By Event – A chronological list of events will be displayed beginning with the most recent event first. Use the **FWD** and **RWD** icons to scroll to more pages of this list. This search can be further refined by **ALARM**, **MOTION**, **VIDEO LOSS** and **SYSTEM LOG** events shown by these four icons. Events of these types can be hidden from view by toggling the associated icon and selecting the **REFRESH** button.
	Alarm In/Out – This page displays the status of each alarm input for the connected DVR. Green indicates normal conditions and Red indicates an alarm condition. This page also offers control of the Alarm Output(s) of the connected DVR.

• PLAYBACK OPERATION

	Fast Reverse
	Fast Forward
	Single Step
	Play / Pause
	Stop
	Playback function menus are split across two pages. Press these buttons to scroll to the next function menu.

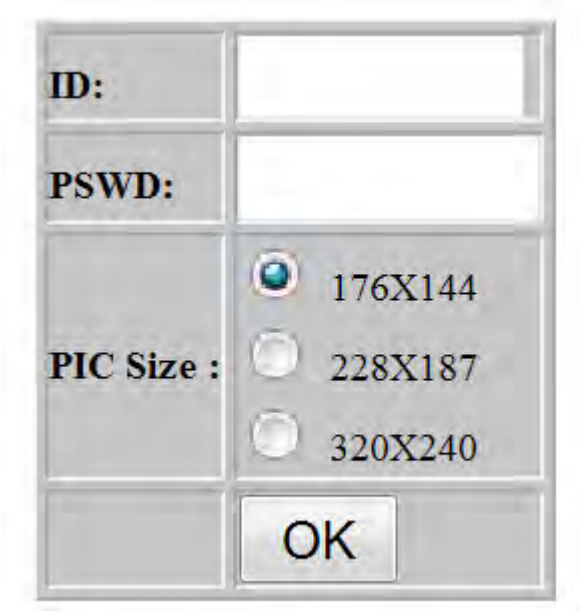
9.7 SMARTPHONE REMOTE CONTROL (OTHER THAN IPHONE) USING WAP

The DVR can also be remotely accessed using a web browser installed on a Smartphone that supports **xHTML** and **MJPEG** file format, and has a screen resolution of **240x320** or above.

To access the DVR, enter the DDNS name or IP address of the DVR in the Location/Address field of the web browser. For most mobile devices, the DVR will automatically redirect to the correct web page by adding the extension **/wap.htm** (EX. http://192.168.1.89/wap.htm). If the DVR does not redirect the device, enter the full address with **/wap.htm** added to the end. If the HTTP has been changed from the default port 80, the correct port should also be added to the address (EX. http://192.168.1.89:800/wap.htm if the HTTP port has been changed to 800).

- **LOGIN**

  Once the login page is displayed, enter the correct login name and password for the DVR to log into the system. Also choose the preferred picture size. Press **OK**.



The following is a brief description for each item in this menu and its specific operations:

- **OK BUTTON**

  Press the **OK** button to submit the settings to DVR. The new settings will take effect and the screen will refresh.

- **QUADRANT**

  Select one of the four-camera quadrants (Q1 for cameras 1-4 or Q2 for cameras 5-8) views or single camera view (cameras 1-8).

- **REFRESH RATE**

  Set the refresh rate from every second to every 30 seconds. For fast auto-refresh, select **0S**.

© 2012 Wirepath Surveillance

10. WARRANTY

3-Year Limited Warranty

This DVR has a 3-Year Limited Warranty. The warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified, disassembled or improperly installed. Products to be repaired under this warranty must be returned to Wirepath™ Surveillance or a designated service center with prior notification and an assigned return authorization number (RA).

For technical support: 1.866.838.5052

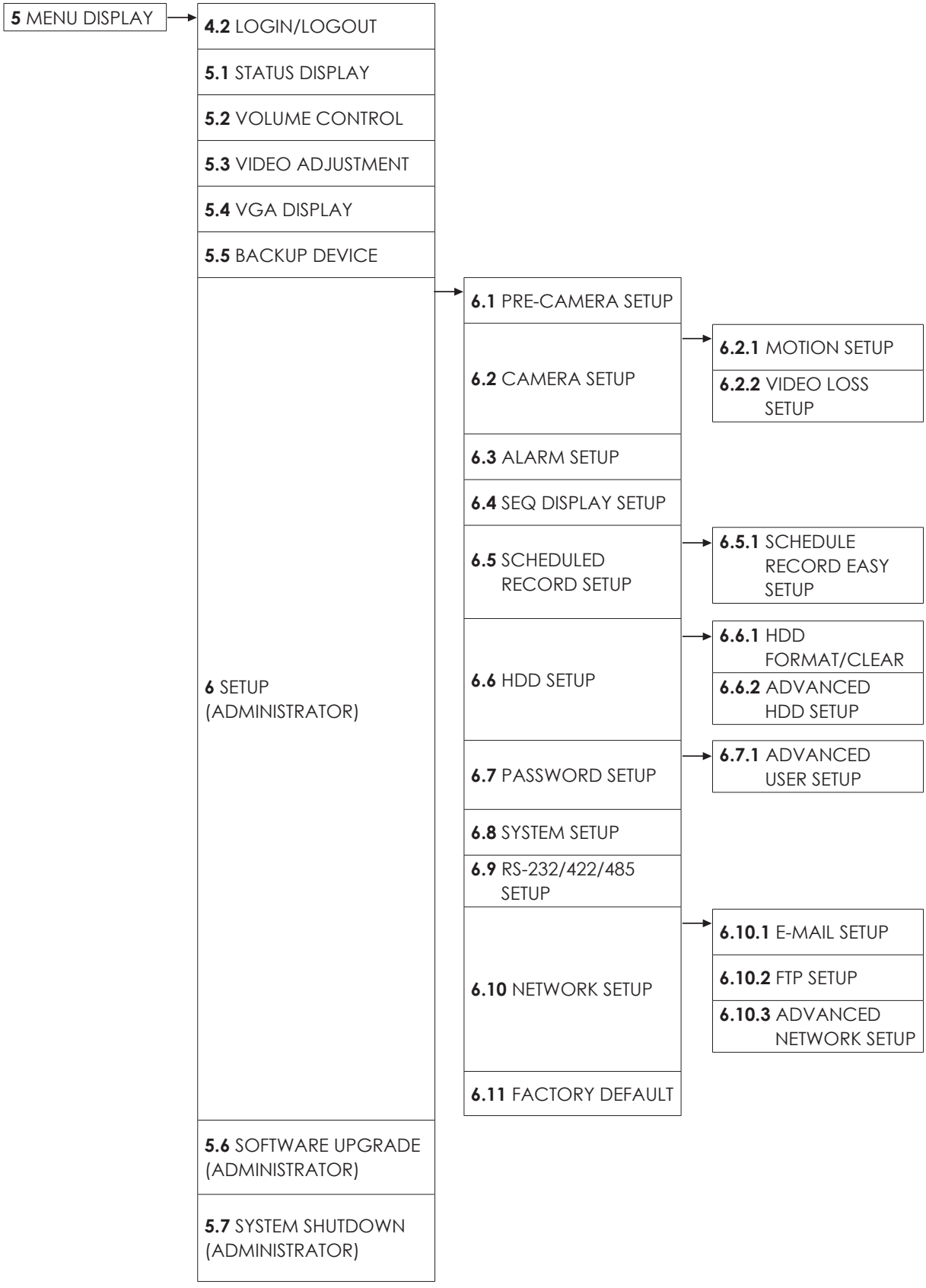
APPENDIX A – SPECIFICATIONS

System	Operating System	Embedded Linux 2.6
Video	Input	8
	Main monitor	VGA / BNC
	Detection	Motion, Video loss
Audio	Input / Output	2 In, 1 Out
Record	Compression	H.264 Video, ADPCM Audio
	Frame rate (FPS) & Resolution	NTSC–60 / 720*480, 120 / 720*240, 240 / 360*240
		PAL –50 / 720*576, 100 / 720*288, 200 / 360*288
	Watermark	Yes
	Mode	Manual / Schedule / Alarm / Motion
	Pre-record	0 - 10 seconds
	Post-record	0 - 60 minutes
Display	Resolution	NTSC – 720*480, PAL – 720*576
	Frame rate	Up to 30 NTSC, 25 PAL FPS per display window
	Digital Zoom	X2, X4
Playback	Frame rate (FPS) & Resolution	NTSC – 60 / 720*480, 120 / 720*240, 240 / 360*240
		PAL – 50 / 720*576, 100 / 720*288, 200 / 360*288
	Search	Smart search, Date/time, Camera, Alarm, Motion, & Video Loss
Storage	SATA HDD	1
	USB Ports	2
Alarm	Input / Output	4 / 1 NO or NC
Network	Ethernet	1 RJ-45 10/100Mbps
	Web	I.E. 32bit with Windows 7, Vista, XP, and 2000 / Dual Streaming live view
	E-mail / FTP	Yes
	Two-way Audio	Yes
	Remote users	6
	Remote stations	PC (Windows / I.E. 32bit) , iPhone (native), mobile phone, PDA, etc. (WAP)
Control Port	RS-485	1 for PTZ
Setup	Local	I/R remote, USB mouse
	Remote	I.E. 32bit
	Multi-lingual	Yes
Weights & Measures	Dimension	12.6" x 8.3" x 1.97"
	Weight	4.4lbs (w/o HDD)
Power	Source	12V DC 3A
	Consumption	30W Max.
	Operating Temperature	32° ~ 113°F

© 2012 Wirepath Surveillance

APPENDIX B – MENU STRUCTURE

Numbers preceding the Menu name are the section numbers for the OSD menu (VGA and BNC output) within this manual.



APPENDIX C – HARD DRIVE RECORDING TABLE

Recording Time (in Days) - For Estimation Purposes Only

System Storage (GB): 500

Resolution	Record Quality Setting	Total Recording Rate (FPS) for the DVR							
		240	**180**	**120**	**60**	**30**	**15**	**10**	**5**
Full D1 (720x480)	9				3.5	7.0	13.9	20.9	42
	8				3.9	7.9	15.7	23.6	47
	7				4.6	9.2	18.4	28	55
	6				5.2	10.5	21.0	31	63
	5				6.9	13.8	28	41	83
	4				8.5	17.1	34	51	102
	3				12.5	25	50	75	150
	2				17.2	34	69	103	207
	1				27	54	107	161	322
Half D1 (720x240)	9			3.5	6.9	13.9	28	42	83
	8			3.9	7.8	15.7	31	47	94
	7			4.6	9.2	18.4	37	55	110
	6			5.2	10.5	21.0	42	63	126
	5			6.9	13.8	28	55	83	165
	4			8.5	16.9	34	68	102	203
	3			12.4	25	49	99	148	297
	2			17.2	34	69	138	207	413
	1			27	54	107	214	322	643
CIF (360x240)	9	3.4	4.6	6.9	13.8	28	55	83	165
	8	3.9	5.2	7.8	15.6	31	62	93	187
	7	4.6	6.2	9.3	18.5	37	74	111	223
	6	5.2	7.0	10.5	21.0	42	84	126	252
	5	6.9	9.2	13.8	28	55	110	165	331
	4	8.3	11.1	16.6	33	67	133	200	399
	3	12.1	16.1	24.1	48	96	193	289	579
	2	17.2	23.0	34	69	138	276	413	827
	1	27	36	54	107	214	429	643	1286

* Time in Days is estimated based on typical camera scenes, and averaged by H.264 I/P/P frames.

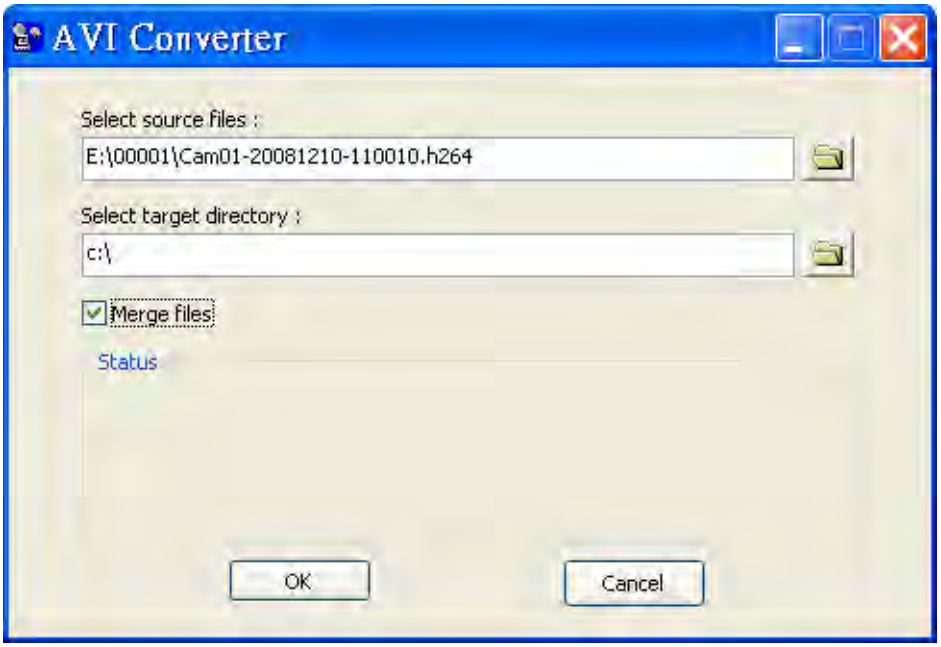
© 2012 Wirepath Surveillance

APPENDIX D – H.264 TO AVI CONVERSION UTILITY

Included on the bundled disc is a MS-Windows utility program used to convert native .h264 files from the DVR to .avi file format to be played back on PCs using Windows Media Player.

1. Insert the CD in the CD-ROM or DVD-ROM drive in the PC and copy the **AVI_Converter.exe** file to the desktop. Double click the **AVI Converter** icon to open the utility.

2. Select the source files (**.h264** files archived from the DVR) to be converted. Select the target directory to save the converted files. Check **Merge files** to "chain" multiple backup files to be converted into one **.avi** file. Click on **OK** to complete the conversion. The converted **.avi** files can be played by **Windows Media Player** or other playback software that supports the **.avi** file format.



APPENDIX E – WIREPATHDNS SETUP

Using the WirepathDNS is easy. Select WirepathDNS from the list and enter the client name or other unique string in the URL. When exiting the Network menu, confirm the changes. A DDNS service is setup automatically. See IE Interface Setup and DVR Local Display Menu Setup below for details on using WirepathDNS.

SOFTWARE VERSION NOTES

When connecting to a DVR via IE an ActiveX component is downloaded that contains a list of available DDNS options.

While WirepathDNS will appear in the IE interface list for all DVRs, this option will ONLY function with software version 7.75.53 or later. DVRs with software below 7.75.53 will need to be upgraded in order to use WirepathDNS on any DVR in the system. Do not setup a WirepathDNS service until the DVR is updated to 7.75.53 or later or you may lose remote access to the DVR.

IE INTERFACE SETUP

1. Log into the DVR via the IE interface.
2. Click on the DEVICE CONFIGURATION icon.
3. Select the DVR in the Device List and click PROPERTIES.
4. Select the NETWORK tab.
5. Under PPPoE/Static IP, set DDNS Type to WirepathDNS.
6. Enter Client Name or System Name to identify the DVR in the URL field. Choose a name that describes the DVR so that it can be easily identified.
7. Click UPLOAD to update the settings on the DVR.
8. CLOSE the Device Properties window.
9. Reselect the DVR in the Device List and click PROPERTIES.
10. Reselect the NETWORK tab.
11. The full address for the DVR will now appear in the URL. Example: snap.WirepathDNS.com
    Note: If the address name is not available, a chosen name will appear in the URL window. Example: snap100.WirepathDNS.com. Repeat steps 4 to 11 until a desired name is achieved.
12. Write down the full name so that it can be used to access the DVR.

DVR LOCAL DISPLAY MENU SETUP

1. Log into the DVR.
2. Open the SETUP menu.
3. Open the NETWORK menu.
4. Under DDNS, set Type to WirepathDNS.
5. Enter Client Name or System Name to identify the DVR in the URL field. Choose a name that describes the DVR so that it can be easily identified.
6. Close the NETWORK menu by pressing MENU/ESC on the remote or clicking the X in the upper right hand corner with the mouse.
7. Close the SETUP menu.
8. Reopen the SETUP menu.
9. Reopen the NETWORK menu.
10. The full address for the DVR will now appear in the URL. Example: snap.WirepathDNS.com
    Note: If the address name is not available, a chosen name will appear in the URL window. Example: snap100.WirepathDNS.com. Repeat steps 4 to 9 until a desired name is achieved.
11. Write down the full name so that it can be used to access the DVR.

© 2012 Wirepath Surveillance

ACCESSING THE DVR

Internet Explorer
To access the DVR, the address must be preceded by http://.

Example: http://snap.WirepathDNS.com:81/ie.htm

The standard port (80) will be used, and does not need to be included in the address. If the port has been changed within router setup, the port number assigned must follow the address.

Smartphone App
To access the DVR, the address is all that is needed, do not enter any prefix or suffix.

Example: snap.WirepathDNS.com

WIREPATH
SURVEILLANCE

120503-1430

© 2012 Wirepath Surveillance